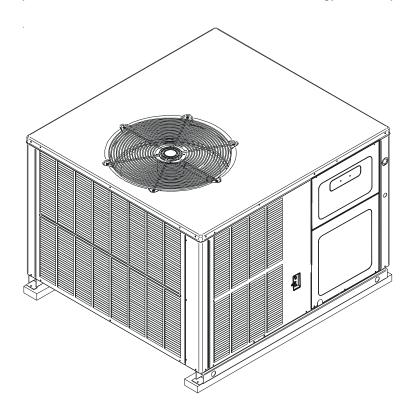
## Goodman TECHNICAL MANUAL

## GPC15 SEER Multi-Position Package Air Conditioners with R-410A

- Refer to Service Manual RS6300008 for installation, operation, and troubleshooting information.
- All safety information must be followed as provided in the Service Manual.
- Refer to the appropriate Parts Catalog for part number information.
- Models listed on page 3.
- Models qualify for the 2009 and 2010 Federal Tax Credits for Energy Efficiency\*\*



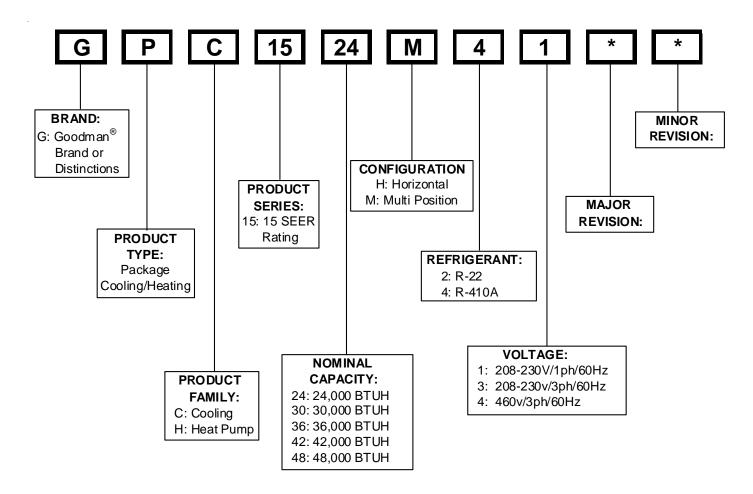
\*\*Note that these tax credits are subject to specific requirements set forth in the American Recovery and Reinvestment Act of 2009 and in the Internal Revenue Code. Goodman recommends that consumers consult a tax professional if they have questions about the applicability of these credits.

This manual is to be used by qualified, professionally trained HVAC technicians only. Goodman does not assume any responsibility for property damage or personal injury due to improper service procedures or services performed by an unqualified person.

RT6322008r3 August 2009

## PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. Please use these numbers when requesting service or parts information.





### **HIGH VOLTAGE!**

Disconnect ALL power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.



WARNING Goodman will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.

WARNING Installation and repair of this unit should be performed ONLY by individuals meeting the requirements of an "entry level technician" as specified by the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). Attempting to install or repair this unit without such background may result in product damage, personal injury or death.

## PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. Please use these numbers when requesting service or parts information.

GPC1524M41A\*

GPC1530M41A\*

GPC1536M41A\*

GPC1542M41A\*

GPC1548M41A\*

<u>Models qualify for the 2009 and 2010 Federal Tax Credits</u>

<u>for Energy Efficiency\*\*</u>

\*\*Note that these tax credits are subject to specific requirements set forth in the American Recovery and Reinvestment Act of 2009 and in the Internal Revenue Code. Goodman recommends that consumers consult a tax professional if they have questions about the applicability of these credits.



The United States Environmental Protection Agency ("EPA") has issued various regulations regarding the introduction and disposal of refrigerants introduced into this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. These regulations may vary by jurisdiction. Should questions arise, contact your local EPA office.

**WARNING** 

Do not connect or use any device that is not design certified by Goodman for use with this unit.

Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices. To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.

## PRODUCT DESIGN

GPC Package Cooling Units are designed for outdoor installations only in either residential or light commercial applications and are available in 2, 2-1/2, 3, 3-1/2 and 4 ton sizes. They are designed for 208/230 volt single phase applications.

The connecting ductwork (Supply and Return) can be connected for either horizontal or vertical airflow. In the vertical application, a matching Roof Curb is recommended and a horizontal duct cover kit is required.

A return air filter must be installed behind the return air grille(s) or provision must be made for a filter in an accessible location within the return air duct. The minimum filter area should not be less than those sizes listed in the Specification Section. Under no circumstances should the unit be operated without return air filters.

A 3/4" PVC pipe is provided for removal of condensate water from the indoor coil In order to provide proper condensate flow, a drain trap is supplied and shipped loose inside the unit for field installation. (Do not reduce the drain line size.)

Refrigerant flow control is achieved by use of restrictor orifices. GPC units use the FasTest Access Fitting System with a saddle that is either soldered to the suction and liquid lines or is fastened with a locking nut to the access fitting box (core) and then screwed into the saddle. Do not remove the core from the saddle until the refrigerant charge has been removed. Failure to do so could result in property damage or personal injury.

The single phase units use permanent split capacitor (PSC) design compressors. Starting components are therefore not required for these units. A low microfarad run capacitor assists the compressor to start and remains in the circuit during operation.

The outdoor fan motors are single phase capacitor type motors. GPC1524-48M41\* units have X-13 indoor blower motors that are energized by a 24V signal from the thermostat and are constant torque motors with very low power consumption. The X-13 features an integral control module.

Air for condensing (cooling cycle) is drawn through the outdoor coil by a propeller fan, and is discharged vertically out the top of the unit. The outdoor coil is designed for .0 static. No additional restriction (ductwork) shall be applied.

Conditioned air is drawn through the filter(s), field installed, across the coil and back into the conditioned space by the indoor blower.

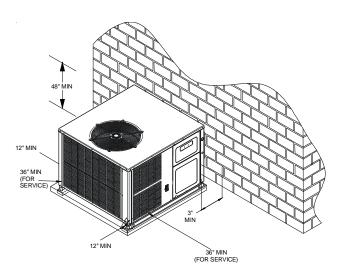
GPC15 models use Copeland Scroll Compressors. There

are a number of design characteristics which are different from the traditional reciprocating compressor.

- Due to their design Scroll Compressors are inherently more tolerant of liquid refrigerant. NOTE: Even though the compressor section of a Scroll compressor is more tolerant of liquid refrigerant, continued floodback or flooded start conditions may wash oil from the bearing surfaces causing premature bearing failure.
- Scroll Compressors use white oil which is compatible with 3GS oil which may be used if additional oil is required.
- Operating pressures and amp draws may differ from standard reciprocating compressors. This information may be found in the "Cooling Performance Data" section.

### Location and Clearances

**NOTE:** To ensure proper condensate drainage, unit must be installed in a level position.

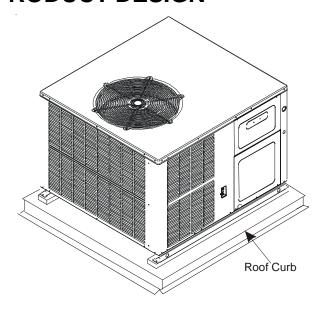


### Outside Slab Installation - Multi-positional (M)

**NOTE:** Roof overhang should be no more than 36" and provisions made to deflect the warm discharge air out from the overhang.

Minimum clearances are required to avoid air recirculation and keep the unit operating at peak efficiency.

## **PRODUCT DESIGN**



## **WARNING**

TO PREVENT POSSIBLE PROPERTY DAMAGE, THE UNIT SHOULD REMAIN IN AN UPRIGHT POSITION DURING ALL RIGGING AND MOVING OPERATIONS. TO FACILITATE LIFTING AND MOVING IF A CRANE IS USED, PLACE THE UNIT IN AN ADEQUATE CABLE SLING.

**IMPORTANT:** If using bottom discharge with roof curb, ductwork should be attached to the curb prior to installing the unit.

Refer to Roof Curb Installation Instructions for proper curb installation. Curbing must be installed in compliance with the National Roofing Contractors Association Manual.

### Rooftop Installation - Multi-positional (M)

**NOTE:** To ensure proper condensate drainage, unit must be installed in a level position.

In installations where the unit is installed above ground level and not serviceable from the ground (Example: Roof Top installations), the installer must provide service platform for service person with rails or guards in accordance with local codes or ordinances or in their absence with the latest edition of the Uniform Mechanical Code Section 305.

**NOTE:** Unit can also use roof curb (and platform for leveling, where necessary) to utilize bottom discharge.

## **PRODUCT DESIGN**

## GPC15[24-48]M41\*

## **HKR ELECTRICAL DATA**

	Circ	uit #1	Circ	uit #2	
Model and Heat Kit Usage	Minimum Circuit Ampacity at 208 / 240V	Maximum Overcurrent Protection (amps) at 208 / 240V	Minimum Circuit Ampacity at 208 / 240V	Maximum Overcurrent Protection (amps) at 208 / 240V	Actual kW & BTU at 240V
GPC1524M41*					
HKR05A,CA	24 / 27	30 / 30			4.75 / 16,200
HKR08A,CA	33 / 28	40 / 40			7.00 / 23,800
HKR10A,CA	45 / 51	60 / 60			9.50 / 32,400
GPC1530M41*					
HKR05A,CA	24 / 27	30 / 30			4.75 / 16,200
HKR08A,CA	34 / 39	40 / 40			7.0 / 23,800
HKR10A,CA	45 / 52	60 / 60			9.5 / 32,400
HKR15A,CA	45 / 52	60 / 60	22 / 25	30 / 30	14.25 / 48,600
GPC1536M41*					
HKR05A,CA	24 / 27	30 / 30			4.75 / 16,200
HKR08A,CA	34 / 39	40 / 40			7.00 / 23,800
HKR10A,CA	45 / 52	60 / 60			9.50 / 32,400
HKR15A,CA	45 / 52	60 / 60	22 / 25	30 / 30	14.25 / 48,600
GPC1542M41*					
HKR05A,CA	24 / 27	30 / 30			4.75 / 16,200
HKR08A,CA	34 / 39	40 / 40			7.0 / 23,800
HKR10A,CA	45 / 52	60 / 60			9.5 / 32,400
HKR15A,CA	45 / 52	60 / 60	22 / 25	30 / 30	14.25 / 48,600
GPC1548M41*					
HKR05A,CA	25 / 28	30 / 30			4.75 / 16,200
HKR08A,CA	34 / 40	40 / 40			7.00 / 23,800
HKR10A,CA	46 / 53	60 / 60			9.50 / 32,400
HKR15A,CA	46 / 52	60 / 60	22 / 25	30 / 30	14.25 / 48,600
HKR20A,CA	46 / 52	60 / 60	43 / 49	60 / 60	19.50 / 66,500

IMPORTANT NOTE: A separate power supply is required for the HKR heater kit.

### Heating kW Correction Factor

Supply Votage	240	230	220	210	208
Correction Factor	1.0	0.93	0.85	0.78	0.76

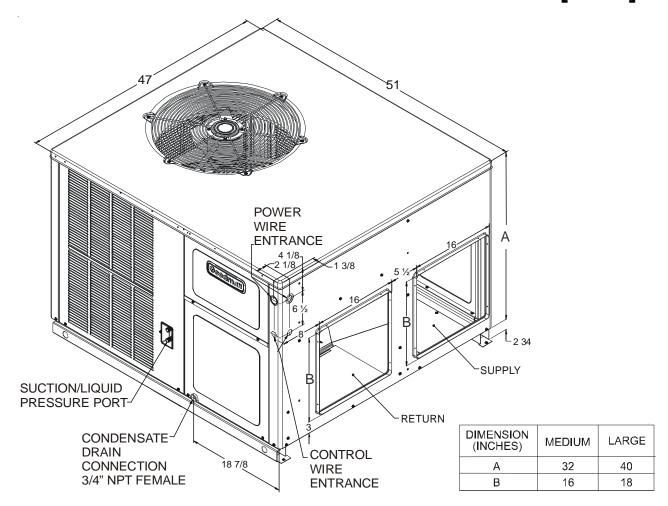
Multiply rated kW by correction factor to get actual kW

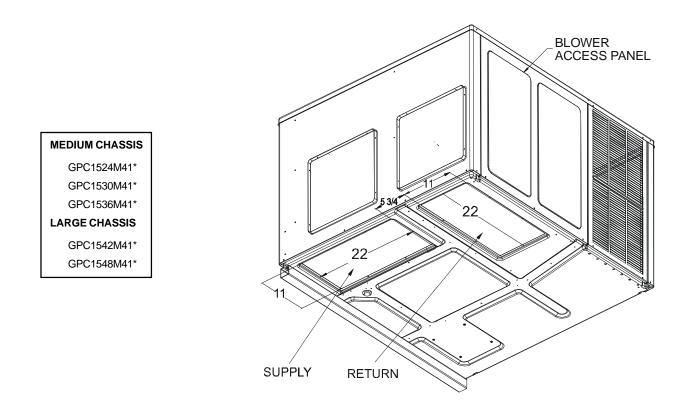


All wires and overcurrent protection devices are sized for use with electric heaters only and without refrigeration. If heaters are not installed with above wire size, overheating and fire could occur. See PACKAGE COOLING SPECIFICATIONS section for minimum circuit ampacity and maximum overcurrent protection during refrigeration cycle.

## **PRODUCT DIMENSIONS**

## GPC15[24-48]M41\*





## PACKAGE COOLING SPECIFICATIONS

## GPC15[24-48]M41A\*

		GPC1524M41*	GPC1530M41*	GPC1536M41*	GPC1542M41*	GPC1548M41*
COOLING	COOLING CAPACITY, BTUH	24,000	28,000	35,000	40,000	45,500
CAPACITY	SEER / EER	14.5 / 12. 0	14.5 / 12. 0	14.5 / 12. 0	14.5 / 12. 0	15.0 / 12.0
UNIT	VOLTAGE (NAMEPLATE)	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
ELECTRICAL	AMPS	15.8	17.5	20.1	22.2	24.2
SPECIFICATION	MIN CIRCUIT AMPACITY	19.0	21.0	24.2	26.7	29.2
	MAX OVERCURRENT PROTECTION	30	35	40	40	45
COMPRESSOR	TYPE	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	RATED LOAD AMPS	12.8	14.1	16.7	17.9	19.9
	LOCKED ROTOR AMPS	58.3	73.0	79.0	112.0	109.0
CONDENSER	HORSEPOWER	1/6	1/4	1/4	1/4	1/4
FAN MOTOR	RPM	815	837	837	1075	1075
	FULL LOAD AMPS	1.1	1.5	1.5	1.4	1.4
	LOCKED ROTOR AMPS	1.7	3.0	3.0	2.9	2.9
CONDENSER	BLADE DIAMETER (INCHES)	22	22	22	22	22
FAN	NUMBER OF BLADES	3	3	3	3	3
CONDENSER	FACE AREA (SQ. FT.)	12.33	12.33	12.33	15.38	15.38
COIL	NUMBER OF ROWS	1	2	2	2	2
	FINS PER INCH	24	16	16	16	16
EVAPORATOR	HORSEPOWER - NO. OF SPEEDS	1/2 - 5	1/2 - 5	1/2 - 5	3/4 - 5	3/4 - 5
BLOWER	FULL LOAD AMPS	1.9	1.9	1.9	2.9	2.9
MOTOR	LOCKED ROTOR AMPS					
	MOTOR SPEED TAP-COOLING X-13	T2	T2	T2	T2	T2
	RPM	1,050	1,050	1,050	1,050	1,050
EVAPORATOR	DIAMETER X WIDTH (INCHES)	10 x 9	10 x 9	10 x 9	10 x 9	10 x 9
BLOWER	RATED SCFM COOLING	850	1,050	1,150	1,350	1,350
	MAX EXTERNAL STATIC PRESS ("w.c.)	0.5	0.5	0.5	0.5	0.5
EVAPORATOR	FACE AREA (SQ. FT.)	4.52	4.52	4.52	6.17	6.17
COIL	NUMBER OF ROWS	3	3	4	4	4
	FINS PER INCH	16	16	14	14	14
GENERAL	FILTER SIZE *	25 x 25 x 1	25 x 25 x 1	25 x 25 x 1	(2) 20 x 20 x 1	(2) 20 x 20 x 1
INFORMATION	DRAIN SIZE (INCHES)	3/4"	3/4"	3/4"	3/4"	3/4"
	EXPANSION DEVICE	0.057	0.065	0.068	0.072	0.076
	REFRIGERANT CHARGE R410A (OZS.)	80	100	115	140	170
	POWER SUPPLY CONDUIT KNOCKOUT SIZE (INCHES)	3/4, 1, 1-1/4	3/4, 1, 1-1/4	3/4, 1, 1-1/4	3/4, 1, 1-1/4	3/4, 1, 1-1/4
	LOW VOLTAGE CONDUIT KNOCKOUT SIZE (INCHES)	1/2	1/2	1/2	1/2	1/2
	SHIPPING WEIGHT (LBS.)	375	384	416	459	459
	OPERATING WEIGHT (LBS.)	354	363	395	438	438

<sup>(1)</sup> Maximum Overcurrent Protection Device: MUST use Time Delay Fuse or HACR type Circuit Breaker of the same size as noted.

Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes. Unit specifications are subject to change without notice. **ALWAYS** refer to the units serial plate for the most up-to-date general and electrical information.

**IMPORTANT:** While this data is presented as a guide, it is important to electrically connect the unit and properly size wires and fuses/circuit breakers in accordance with the National Electrical Code and/or all local codes. Data shown is w/o electric heaters.



All wires and overcurrent protection devices are sized for use with electric heaters only and without refrigeration. If heaters are not installed with above wire size, overheating and fire could occur. See PACKAGE COOLING SPECIFICATIONS section for minimum circuit ampacity and maximum overcurrent protection during refrigeration cycle.

<sup>\*</sup> Calculated external filter size based on air velocity of 300 ft/min.

## **ACCESSORIES**

	ACCESSORIES - GPC/GPH****M MODELS
Part Number	Description
OT18-60 A	Outdoor Thermostat Kit w/Lockout Stat
OT/EHR18-60	Emergency Heat Relay Kit
HKR	Electric Heat Kit
PGC101/102/103	Roof Curb
PEHH101/102	Horizontal Economizer For Heat Pump, Small and Medium Chassis
PEHH103	Horizontal Economizer For Heat Pump, Large Chassis
PEHC101/102	Horizontal Economizer For A/C, Small and Medium Chassis
PEHC103	Horizontal Economizer For A/C, Large Chassis
PGMDD101/102	Manual 25% Fresh Air Damper Downflow Application, Small and Medium Chassis
PGMDD103	Manual 25% Fresh Air Damper Downflow Application, Large Chassis
PGMDH102	Manual 25% Fresh Air Damper Horizontal Application, Medium Chassis
PGMDH103	Manual 25% Fresh Air Damper Horizontal Application, Large Chassis
PGMDMD101/102	Motorized 25% Fresh Air Damper Downflow Application, Small and Medium Chassis
PGMDMD103	Motorized 25% Fresh Air Downflow Application, Large Chassis
PGMDMH102	Motorized 25% Fresh Air Damper Horizontal Application, Medium Chassis
PGMDMH103	Motorized 25% Fresh Air Damper Horizontal Application, Large Chassis
GPC13MED102	Downflow Economizer For A/C, Medium Chassis
GPC13MED103	Downflow Economizer For A/C, Large Chassis
GPH13MED102	Downflow Economizer For Heat Pump, Medium Chassis
GPH13MED103	Downflow Economizer For Heat Pump, Large Chassis
GPH13MFR102	Internal Filter Rack, Medium Chassis
GPH13MFR103	Internal Filter Rack, Large Chassis
GPGHFR101-103	External Horizontal Filter Rack for Goodman/Amana Gas/Electric and Multi-position Package Units All Chassis
SQRPG101/102	Square to Round Adapter w/ 16" Round Downflow Application, Medium Chassis
SQRPG103	Square to Round Adapter w/ 18" Round Downflow Application, Large Chassis
SQRPGH101/102	Square to Round Adapter w/ 16" Round Horizontal Application, Medium Chassis
SQRPGH103	Square to Round Adapter w/ 18" Round Horizontal Application, Large Chassis
CDK36	Flush Mount Concentric Duct Kit
CDK36515	Flush Mount Concentric Duct Kit w/ Filter
CDK36530	Step Down Concentric Duct Kit
CDK36535	Step Down Concentric Duct Kit w/ Filter
CDK4872	Flush Mount Concentric Duct Kit
CDK4872515	Flush Mount Concentric Duct Kit w/ Filter
CDK4872530	Step Down Concentric Duct Kit
CDK4872535	Step Down Concentric Duct Kit w/ Filter

## **BLOWER PERFORMANCE DATA**

## GPC15[24-48]M41A\*

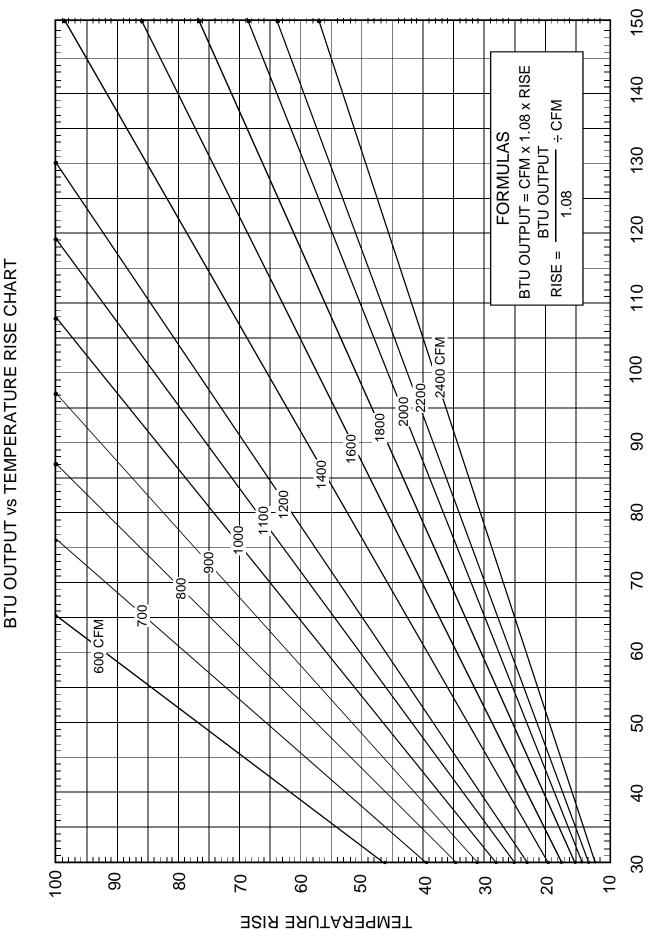
### Dry Coil Data

Model	Speed	Vc	olts				E.S.P (In	. of H₂O)			
Wodel	Opecu	V	nts	0.1	0.2	0.3	0.4	0.5	0.6	0.7	8.0
	T1 (G)	230	CFM	882	808	727	649	545			
<u>*</u>	11(0)	200	WATTS	82	86	92	102	108			
2.4M	T2/T3	230	CFM	933	873	810	733	637	584		
GPC1524M41*	12/13	250	WATTS	93	103	109	120	126	135		
9	T4 / T5	230	CFM	1058	1012	945	896	816	723	672	
	11710	200	WATTS	124	136	142	153	168	172	179	
	T1 (G)	230	CFM	893	824	752	665	575			
<u>*</u>	11 (G)	230	WATTS	87	95	101	111	115			
30M	T2/T3	230	CFM	1132	1070	1011	959	889	827	733	669
GPC1530M41*	12/13	230	WATTS	153	162	168	179	184	195	206	208
G G	T4 / T5	230	CFM	1287	1236	1165	1123	1066	1012	958	857
	14/13	250	WATTS	211	217	228	239	244	255	265	272
	T1 (G)	230	CFM	852	764	711	592	545			
<u>*</u>	11(0)	200	WATTS	80	82	85	95	99			
GPC1536M41*	T2/T3	230	CFM	1232	1190	1131	1082	1023	966	889	819
Ω Ω	12710	200	WATTS	202	214	221	229	235	246	258	264
9	T4 / T5	230	CFM	1267	1213	1162	1120	1058	1009	932	841
	14710	200	WATTS	218	226	236	245	247	260	272	275
	T1 (G)	230	CFM	1123	1070	1025	984	942	894	839	774
<u>*</u>	11(0)	200	Watts	162	170	182	193	204	216	229	242
GPC1542M41*	T2/T3	230	CFM	1437	1390	1354	1318	1281	1243	1204	1165
G 5	12710	200	Watts	310	317	331	342	355	366	377	389
G G	T4 / T5	230	CFM	1528	1490	1450	1410	1383	1348	1312	1267
	14/13	250	Watts	372	379	391	403	416	427	439	451
	T1 (G)	230	CFM	1199	1138	1085	1017	957	889	820	755
<u>*</u>	11(0)	250	WATTS	162	173	185	193	211	219	232	245
GPC1548M41*	T2/T3	230	CFM	1799	1745	1698	1658	1610	1560	1522	1450
<u>ვ</u>	12/13	230	WATTS	480	493	508	521	531	545	550	547
GP	T4 / T5	230	CFM	1921	1865	1818	1780	1719	1667	1579	1483
	14/10	200	WATTS	582	585	602	625	627	621	595	569

### NOTES:

- Data shown is Dry Coil. Wet Coil Pressure Drop is approximate. 0.1" H<sub>2</sub>O, for 2 row indoor coil; 0.2" H<sub>2</sub>O, for 3 row indoor coil; and 0.3" H<sub>2</sub>O, for 4 row indoor coil.
- Data shown does not include filter pressure drop, approx. 0.08" H<sub>2</sub>O.
- ALL MODELS SHOULD RUN NO LESS THAN 350 CFM / TON.
- Reduce airflow by 2% for 208V operation.

## **BLOWER PERFORMANCE DATA**



**OUTPUT BTU/HR x 1000** 

## **GPC1524M41\***

## **COOLING OPERATION**

**EXPANDED PERFORMANCE DATA** 

Design Subcooling, 7 °F @ the liquid access fitting connection AHR 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

													Outdoo	r Ambi	ent Tem	Outdoor Ambient Temperature	a)									
				9	92			7	75			85	2			6	92			105	2			115	2	
												Enterin	g Indoc	r Wet I	Bulb Tei	Entering Indoor Wet Bulb Temperature	re									
IDB*	Airflow		29	63	<b>29</b>	71	29	63	29	71	29	63	29	71	29	ස	29	71	69	63	29	71	29	63	29	71
		MBh	24.3	25.1	27.5	٠	23.7	24.6	26.9		23.1	24.0	26.3	-	22.6	23.4	25.6		21.4	22.2	24.3		19.9	20.6	22.5	
		S/T	0.72	09:0	0.42	-	0.75	0.63	0.43	-	0.77	0.64	0.45	-	0.79	99.0	0.46	-	0.82	0.69	0.48	-	0.83	69.0	0.48	-
		Delta T	17	15	11	-	17	15	11	-	17	15	11	-	17	15	11	-	17	15	11	-	16	14	10	-
	926	KW	1.51	1.55	1.62		1.66	1.71	1.78	-	1.80	1.85	1.92	-	1.91	1.97	2.04	-	2.01	2.07	2.15	-	2.10	2.16	2.24	-
		AMPS	7.4	7.6	7.8	٠	6.7	8.1	8.3	-	8.5	8.7	8.9	-	0.6	92	9.2	-	9.6	9.7	10.0	-	10.0	10.3	10.6	-
		HI PR	249	268	283		279	301	317	-	318	342	361		362	389	411		407	438	463		450	484	511	
		LO PR	109	116	126	-	115	122	134		120	127	139	-	126	134	146	-	132	140	153		136	145	158	1
		MBh	23.5	24.4	26.7		23.0	23.8	26.1	-	22.4	23.3	25.5		21.9	22.7	24.9		20.8	21.6	23.6		19.3	20.0	21.9	
		S/T	0.69	0.58	0.40		0.72	09.0	0.41		0.73	0.61	0.42		0.76	0.63	0.44	-	0.79	99.0	0.46	-	0.79	99.0	0.46	
		Delta T	18	15	12	-	18	15	12	1	18	15	12	-	18	16	12	-	18	15	12	-	17	14	11	-
20	820	ΚW	1.50	1.54	1.60		1.65	1.69	1.76	-	1.78	1.83	1.90	-	1.89	1.95	2.02	-	1.99	2.05	2.13	-	2.08	2.13	2.22	-
		AMPS	7.3	7.5	7.7	٠	7.9	8.0	8.2	-	8.4	8.6	8.9	-	8.9	9.1	9.4	-	9.2	9.7	10.0	-	10.0	10.2	10.5	-
		HI PR	246	265	280	٠	277	298	314	-	314	338	357		358	382	407	-	403	434	458	-	445	479	206	-
		LO PR	108	115	125	٠	114	121	132		118	126	138	1	124	132	144	-	130	139	151		135	143	157	
		MBh	21.7	22.5	24.7		21.2	22.0	24.1	-	20.7	21.5	23.5		20.2	21.0	23.0	-	19.2	19.9	21.8	-	17.8	18.4	20.2	
		S/T	29.0	0.56	0.39	-	69.0	0.58	0.40	-	0.71	0.59	0.41	-	0.73	0.61	0.42	-	92.0	0.63	0.44	-	0.76	0.64	0.44	-
		Delta T	18	15	12	٠	18	16	12	-	18	16	12		18	16	12	-	18	16	12	-	17	15	11	-
	744	KW	1.45	1.49	1.55	٠	1.60	1.64	1.71	-	1.72	1.77	1.84	-	1.84	1.89	1.96	-	1.93	1.98	2.06	-	2.01	2.07	2.15	-
		AMPS	7.2	7.3	7.5	٠	7.7	7.8	8.0	-	8.2	8.4	8.7		8.7	8.9	9.5		9.5	9.4	9.7	-	9.7	6.6	10.2	-
		HI PR	239	257	272	•	268	289	305		305	328	347	,	347	374	395	-	391	421	444	-	432	465	491	-
		LO PR	105	111	121	•	111	118	128	-	115	122	133		121	128	140	-	126	135	147	-	131	139	152	

													•			•	_		•	
24.1	0.41	10	2.36	11.0	538	170	23.4	0.39	10	2.33	10.9	533	168	21.6	0.38	10	2.26	10.7	517	163
22.5	0.64	14	2.27	10.7	516	160	21.8	0.61	14	2.24	10.6	511	158	20.2	0.59	15	2.17	10.3	496	153
20.8	0.85	17	2.18	10.4	489	146	20.2	0.81	18	2.16	10.3	484	145	18.6	0.78	18	2.09	10.0	470	141
20.2	0.95	18	2.12	10.1	454	138	19.6	0.90	19	2.10	10.0	450	136	18.1	0.87	19	2.04	8.6	436	132
26.1	0.41	10	2.26	10.5	487	164	25.3	0.39	11	2.24	10.4	482	163	23.4	0.38	11	2.17	10.1	468	158
24.3	0.63	15	2.17	10.1	467	154	23.6	0.61	15	2.15	10.0	463	153	21.8	0.58	16	2.09	8.6	449	148
22.4	0.84	18	2.09	8.6	442	141	21.8	0.80	19	2.07	2.6	438	140	20.1	0.77	19	2.00	9.5	425	136
21.8	0.94	20	2.03	9.6	411	133	21.2	0.89	20	2.01	9.5	407	132	19.5	98.0	21	1.95	9.3	395	128
27.4	0.39	10	2.15	6.6	433	157	26.6	0.38	11	2.13	9.8	429	155	24.6	98.0	11	2.06	9.6	416	151
25.6	0.61	15	2.07	9.6	415	147	24.8	0.58	16	2.04	9.2	411	146	22.9	95.0	16	1.98	9.3	336	142
23.6	0.81	18	1.99	9.3	393	135	22.9	0.77	19	1.97	92	389	134	21.2	0.74	19	1.91	0.6	378	130
22.9	0.90	20	1.93	9.1	365	127	22.3	0.86	21	1.91	0.6	362	126	20.6	0.83	21	1.86	8.8	351	122
28.1	0.38	10	2.02	9.3	380	149	27.3	0.36	11	2.00	9.2	37.7	148	25.2	0.35	11	1.94	0.6	365	144
26.2	0.59	15	1.94	9.0	365	140	25.4	0.56	16	1.92	8.9	361	139	23.5	0.54	16	1.86	8.7	320	135
24.2	0.78	18	1.86	8.8	345	129	23.5	0.75	19	1.85	8.7	342	127	21.7	0.72	19	1.79	8.5	332	123
23.5	0.88	20	1.81	9.8	321	121	22.8	0.83	21	1.80	8.5	318	120	21.1	0.80	21	1.74	8.3	308	116
28.8	0.37	10	1.87	8.7	334	144	28.0	0.35	11	1.85	9.8	331	142	25.8	0.34	11	1.79	8.4	321	138
26.8	0.58	15	1.80	8.4	321	135	26.1	0.55	16	1.78	8.3	317	134	24.1	0.53	16	1.72	8.1	308	130
24.8	92.0	18	1.73	8.1	304	124	24.1	0.73	19	1.71	8.1	301	122	22.2	0.70	19	1.66	6.7	292	119
24.1	0.85	20	1.68	8.0	282	116	23.4	0.81	21	1.66	7.9	279	115	21.6	0.78	21	1.61	7.7	271	112
29.5	0.36	10	1.70	8.1	298	136	28.6	0.34	11	1.68	8.0	295	135	26.4	0.33	11	1.63	7.8	286	131
27.5	0.56	15	1.63	7.8	286	128	26.7	0.53	15	1.62	7.8	283	127	24.6	0.51	16	1.57	9.7	274	123
25.4	0.74	18	1.57	9.7	271	117	24.7	0.70	19	1.56	9.7	268	116	22.8	0.68	19	1.51	7.4	260	112
24.7	0.82	20	1.53	2.7	251	110	23.9	0.79	20	1.51	7.4	249	109	22.1	92.0	21	1.47	7.2	241	106
MBh	S/T	Delta T	ΚW	AMPS	HI PR	LOPR	MBh	S/T	Delta T	ΚW	AMPS	HI PR	LOPR	MBh	S/T	Delta T	KW	AMPS	HI PR	LOPR
			926							820							744			
										75										

<sup>\*</sup> Entering Indoor Dry Bulb Temperature NOTE: Shaded area is ACCA (TVA) conditions High and low pressures are measured at the liquid and suction access fittings.

MODEL: GPC1524M41

## **COOLING PERFORMANCE DATA**

## **GPC1524M41\***

## **COOLING OPERATION**

## **EXPANDED PERFORMANCE DATA**

MODEL: GPC1524M41

Design Subcooling, 7 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

)												Out	tdoor A	Outdoor Ambient Temperature	emperat	ure									
				65	2			75	2			85				92			10	105			115		
											_	tering li	ndoor V	Entering Indoor Wet Bulb Temperature	Tempera	ture									
*BOI	Airflow		29	63	29	71	29	63	29	71	29 (	.9 63	67 71	1 59	ස	29	71	29	63	29	71	29	63	29	71
		MBh	25.1	25.6	27.4	29.3	24.5	25.1	26.8	28.6		24.5 26	26.1 27	27.9 23.3			27.2	22.2	22.7	24.2	25.9	20.5	21.0	22.4	24.0
		S/T	06'0	0.85	69.0	0.52	0.94	0.88	0.71	0.53	0.96	0.90 0.7	0.73 0.55	55 1.00	0.93	92'0	0.57	1.00	96:0	0.78	0.59	1.00	1.00 (		0.59
		Delta T	22	21	18	15	22	21	18	15		21 1	18 1	15 22	21	19	15	21	21	18	15	20	20	17	14
	926	ΚW	1.54	1.59	1.65	1.72	1.70	1.74	1.82	1.89		1.88 1.9	1.96 2.04			2.09	2.17	2.05	2.11	2.20	2.28	2.14	2.20		2.38
		AMPS	7.5	7.7	7.9	8.1	8.0	8.2	8.4	8.7				=			10.0	9.7	6.6	10.2	10.6	10.2		10.8	11.1
		H PR	254	273	289	301	282	307	324	338				_			438	415	447	472	492	459		521	544
		LO PR	111	118	129	137	117	125	136	145	122 1	130 142	42 151	51 128	136	149	159	134	143	156	166	139	148	161	172
		MBh	24.4	24.9	26.6	28.4	23.8	24.3	26.0	27.8							26.5	21.5		23.5	25.1	19.9	١.	21.8	23.3
		S/T	98.0	0.81	99.0	0.49	0.89	0.84	0.68	0.51	0.92	l		52 0.94	1 0.89		0.54	0.98	0.92	0.75	0.56	0.99			0.56
		Delta T	23	22	19	15	23	22	19	15				H			15	23		19	15	21	20	18	14
8	820	KW	1.53	1.57	1.63	1.70	1.68	1.73	1.80	1.87	1.82	1.86 1.9	_	02 1.93	3 1.99		2.15	2.03	2.09	2.17	2.26	2.12		2.27	2.36
		AMPS	2.7	9.7	7.8	8.1	8.0	8.1	8.4	8.7	8.6	8.8 9.	9.0 9.3	.3 9.1	9.3	9.6	6.6	9.6	9.8	10.1	10.5	10.1	10.4	10.7	11.0
		HI PR	251	271	286	298	282	304	321	334							433	411	443	467	487	454	489	516	538
		LO PR	110	117	128	136	116	124	135	144				Н			157	133		154	165	138	146	160	170
		MBh	22.5	23.0	24.6	26.3	22.0	22.4	24.0	25.6		21.9 23	23.4 25.0	0.02   20.9	9 21.4		24.4	19.9	20.3	21.7	23.2	18.4	18.8	20.1	21.5
		S/T	0.83	0.78	0.63	0.47	98.0	0.81	99.0	⊢	0.88		I.	⊢			0.52	0.95		0.72	0.54	0.95			0.54
		Delta T	23	22	19	15	23	22	19	┢				-			16	-		19	15	22			14
	744	KW	1.48	1.52	1.58	1.65	1.63	1.67	1.74	1.81	1.76	1.81 1.8	1.88 1.96	96 1.87	7 1.93		2.08	1.97	2.03	2.11	2.19	2.06	2.11	2.20	2.29
		AMPS	7.3	7.4	7.6	7.9	7.8	8.0	8.2	8.4				Н			9.6	Н	9.6	6.6	10.2	9.6	10.1	10.4	10.8
		표	244	262	277	289	274	295	311	324		335 36	354 36	369 355	382	403	420	366	429	453	473	441		501	522
		LO PR	107	114	124	132	113	120	131	139	117 1			123			152	129	137	150	160	133	142	155	165
											N	NOTE: Sh	Shaded an	area reflects	ts AHRI rat	ating condit	ions								
		ЧВМ	25.5	26.0	27.3	29.1	24.9	25.4	26.6	28.4	24.4 2	24.8 26	26.0 27.7	7 23.8	3 24.2		27.1	22.6	23.0	24.1	25.7	20.9	21.3		23.8
		S/T	0.95	0.91	0.82	0.67	0.98	0.95	0.85	0.69				Ŀ			0.73	Н	1.00	0.94	0.76	1.00		0.95	0.77
		Delta T	23	23	22	19	24	23	22	19				19 23			19	22	22	22	19	20		20	18
	926	KW	1.56	1.60	1.67	1.74	1.72	1.76	1.83	1.91	1.85 1			_			2.19	2.08	2.13	2.22	2.31	2.16		2.31	2.41
		AMPS	7.6	7.7	7.9	8.2	8.1	8.3	8.5	8.8							10.1	9.8	10.0	10.3	10.6	10.3		10.8	11.2
		HI PR	257	276	292	304	288	310	327	341	327 3	352 37	372 38	388 373	3 401	424	442	419	451	477	497	463		527	549
		LO PR	112	119	130	139	119	126	138	147							160	136	144	158	168	140		163	174
		MBh	24.8	25.3	26.5	282	24.2	24.7	25.9	27.6				_			26.3	_	22.3	23.4	25.0	20.3		21.7	23.1
		SVT	0.30	0.87	0.79	0.64	0.94	0.00	0.81	99.0	0.96			68 0.99	96.0		0.70	-	0.3	0.30	0.73	1.00		0.30	0.73
		Delta T	24	24	23	19	25	24	23	20				$\dashv$			20	24	24	23	20	22			9
82	820	ΚW	<b>1</b> .5	1.59	1.65	1.72	1.70	1.74	1.82	1.89				$\dashv$			2.17	-	2.11	2.20	2.28	2.14		2.29	2.38
		AMPS	7.5	7.7	7.9	8.1	8.0	8.2	8.4	8.7				+			10.0	-	6.6	10.2	10.6	10.2			7.
		품	254	273	120	301	282	307	324	338	324 3	349 368	384	34 369	397	420	438	415	447	472	492	459	494	521	172
		101 X		2 6	24.0	5		25.00		2 1				╋			3	+	2	5 5	8	3 6			1 0
		MBh	22.9	23.3	24.4	26.1	22.4	22.8	23.9	25.5	21.8	22.2 23	23.3 24.9	5.9 21.3			24.2	20.2	20.6	21.6	23.0	18.7		_  .	21.3
		\ <u>\</u>	0.87	0.84	0.76	0.62	0.30	0.87	0.79	0.64 24				-			0.67	0.99	0.36	0.86	0.70	1.00			0.71
		Delta T	25	24	23	20	25	25	23	20	22	25 23	23 20	0 25	52	23	20	25	24	23	20	23		22	19
	4	ΚW	1.50	1.54	1.60	1.67	1.65	1.69	1.76	1.83				$\dashv$			2.11	1.99	2.05	2.13	2.22	2.08			2.31
		AMPS	7.3	7.5	7.7	7.9	7.8	8.0	8.2	8.5			8.9 9.	9.2 8.9		9.4	9.7	9.2	9.7	10.0	10.3	10.0		10.5	10.8
		Ξ <u>ς</u>	246	265	280	292	276	297	314	328				+	382		424	403	434	458	477	445	479	506	528
		LOPK	801	CI.I.	C7	33	<b>41.1</b>	171	132	-1	21.18	071	3/ 14	140 174			124	130	139	101	101	ક		/61	/ 91
k	Entering In	<ul> <li>* Entering Indoor Dry Bulb Temperature</li> </ul>	lb Temp	erature.				NOTE	Shaded area	<u>.s</u>	AR	Rating Conditions	ditions				II X X	Total SV	KW = Total system power	wer					

NOTE: Shaded area is AHRI Rating Conditions High and low pressures are measured at the liquid and suction access fittings.

KW = Total system power

AMPS: Unit amps (comp. + evaporator + condenser fan motors)

## GPC1530M41\*

## **COOLING OPERATION**

## EXPANDED PERFORMANCE DATA

Design Subcooling, 7 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

												O	utdoor	Ambie	Outdoor Ambient Temperature	erature										
				9	2			75	2			85				92				105	9			115		
											Е	ntering	I Indoor	WetB	Entering Indoor Wet Bulb Temperature	perature	ć									
IDB*	Airflow		29	63	29	71	29	63	29	71	29	63	. 29	71	29	ස	29	7.1	29	63	29	71	29	63	29	71
		MBh	27.9	28.9	31.7	-	27.3	28.3	31.0	-	26.6	27.6	30.2	-	26.0	26.9	29.5	-	24.7	25.6	28.0	-	22.8	23.7 2	25.9	
		S/T	0.73	0.61	0.42	-	92.0	0.63	0.44	-	0.78 (	0.65	0.45	) -	0.80	0.67	0.46	-	0.83	69.0	0.48	) -	0.84 (	0.70 C	0.49	
		Delta T	16	14	10	-	16	14	11	-	16	14	11	-	16	14	11	-	16	14	10	-	15	13	10	
	1181	KW	1.72	1.76	1.83	•	1.89	1.94	2.01	-	2.03	2.09	2.17	-	2.16	2.22	2.31	-	2.27	2.33	2.42	-	2.37	2.43 2	2.52	
		AMPS	8.5	8.7	8.9	-	9.1	9.3	9.5	-	9.7	6.6	10.2	-	10.3	10.5	10.8	-	10.9	11.1	11.4	-	11.4	11.6 1	12.0	
		H PR	232	249	263		260	280	296		596	318	336		337	363	383		379	408	431	-	419	451 4	476	
		LO PR	108	115	125	-	114	121	132	-	118	126	137	-	124	132	144	-	130	139	151	-	135	143 1	157	
		MBh	27.1	28.1	30.8		26.5	27.4	30.1	-	25.8	26.8	29.3	-	25.2	26.1	28.6		23.9	24.8	27.2	-	22.2	23.0 2	25.2	
		S/T	0.70	0.58	0.40	1	0.72	09.0	0.42	-	0.74 (	0.62	0.43	-	0.76	0.64	0.44	-	6.70	99.0	0.46	-	0.80	0.67 C	0.46	
		Delta T	17	14	11	-	17	14	11	-	17	15	11	-	17	15	11	-	17	14	11	-	16	13	10	
2	1050	KW	1.70	1.75	1.82	-	1.87	1.92	1.99	-	2.01	2.07	2.15	-	2.14	2.20	2.28	-	2.25	2.31	2.40	-	2.34	2.41 2	2.50	
		AMPS	8.5	9.8	8.9	-	9.0	9.2	9.5	-	9.7	6.6	10.1	-	10.2	10.4	10.7	-	10.8	11.0	11.3	-	11.3	11.6 1	11.9	
		HI PR	230	247	261	-	258	277	293	-	293	315	333	-	334	329	379	-	375	404	426	-	415	446 4	471	
		LO PR	107	114	124	-	113	120	131	-	117	125	136	-	123	131	143	1	129	137	150	-	133	142 1	155	
		MBh	25.0	25.9	28.4	-	24.4	25.3	27.7	-	23.8	24.7	27.1	<u> </u>	23.3	24.1	26.4	-	22.1	22.9	25.1	-	20.5	21.2 2	23.2	
		S/T	29.0	0.56	0.39	-	0.70	0.58	0.40	-	0.71 (	09.0	0.41	-	0.74	0.62	0.43	-	7.0	0.64	0.44	) -	0.77 (	0.64 C	0.45	
		Delta T	17	15	11	ı	17	15	11	-	17	15	11	-	17	15	11	1	17	15	11	-	16	14	10	
	919	KW	1.65	1.70	1.76	ı	1.81	1.86	1.93	-	1.95	2.00	2.08	-	2.08	2.13	2.22	1	2.18	2.24	2.33	-	2.27	2.33 2	2.43	
		AMPS	8.3	8.5	8.7	•	8.8	9.0	9.2	-	9.4	9.6	6.6	-	10.0	10.2	10.5	-	10.5	10.7	11.0	'	11.0	11.3 1	11.6	
		HI PR	223	240	253	-	250	569	284	-	284	306	323	-	324	348	368	-	364	392	414	-	402	433 4	457	
		LO PR	104	110	120	-	109	116	127		114	121	132	-	119	127	139	-	125	133	145	-	129	138 1	150	

| 6       | 2.65  | 12.5   
   | 501   | 168  | 27.0   
   
   | 0.40  
   
   | 6   | 2.63  
  | 12.4   
   | 496   
  | 167  
  | 24.9  | 0.38   | 10   | 2.55   
   | 12.1  | 482  | 162   |
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--|---|
| 13      | 2.55  | 12.1   
   | 481   | 158  | 25.1   
   
   | 0.62  
   
   | 14  | 2.53  
  | 12.0   
   | 476   
  | 157  
  | 23.2  | 0.59   | 14   | 2.45   
   | 11.7  | 462  | 152   |
| 16      | 2.45  | 11.7   
   | 455   | 145  | 23.2   
   
   | 0.81  
   
   | 17  | 2.43  
  | 11.6   
   | 451   
  | 143  
  | 21.4  | 0.78   | 17   | 2.36   
   | 11.4  | 437  | 139   |
| 17      | 2.39  | 11.5   
   | 423   | 136  | 22.6   
   
   | 0.91  
   
   | 18  | 2.37  
  | 11.4   
   | 419   
  | 135  
  | 20.8  | 0.88   | 18   | 2.30   
   | 11.1  | 406  | 131   |
| 10      | 2.55  | 11.9   
   | 454   | 163  | 29.1   
   
   | 0.39  
   
   | 10  | 2.52  
  | 11.8   
   | 449   
  | 161  
  | 26.9  | 0.38   | 10   | 2.45   
   | 11.5  | 436  | 156   |
| 14      | 2.45  | 11.5   
   | 435   | 153  | 27.1   
   
   | 0.61  
   
   | 15  | 2.42  
  | 11.4   
   | 431   
  | 151  
  | 25.0  | 0.59   | 15   | 2.35   
   | 11.1  | 418  | 147   |
| 17      | 2.36  | 11.2   
   | 412   | 140  | 25.1   
   
   | 0.81  
   
   | 18  | 2.33  
  | 11.1   
   | 408   
  | 139  
  | 23.1  | 0.78   | 18   | 2.26   
   | 10.8  | 396  | 134   |
| 18      | 2.29  | 10.9   
   | 383   | 132  | 24.3   
   
   | 06.0  
   
   | 19  | 2.27  
  | 10.9   
   | 379   
  | 130  
  | 22.5  | 0.87   | 20   | 2.20   
   | 10.6  | 368  | 126   |
| 10      | 2.42  | 11.2   
   | 403   | 155  | 30.7   
   
   | 0.38  
   
   | 10  | 2.40  
  | 11.2   
   | 336   
  | 154  
  | 28.3  | 98.0   | 10   | 2.33   
   | 10.9  | 387  | 149   |
| 14      | 2.33  | 10.9   
   | 387   | 146  | 28.6   
   
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  | 10.8   
   | 383   
  | 144  
  | 26.4  | 0.57   | 15   | 2.24   
   | 10.6  | 371  | 140   |
| 17      | 2.24  | 10.6   
   | 366   | 134  | 26.4   
   
   | 0.78  
   
   | 18  | 2.22  
  | 10.5   
   | 363   
  | 132  
  | 24.4  | 0.75   | 18   | 2.15   
   | 10.3  | 352  | 128   |
| 19      | 2.18  | 10.4   
   | 340   | 126  | 25.6   
   
   | 0.87  
   
   | 20  | 2.16  
  | 10.3   
   | 337   
  | 124  
  | 23.7  | 0.84   | 20   | 2.10   
   | 10.1  | 327  | 121   |
| 10      | 2.28  | 10.6   
   | 354   | 148  | 31.4   
   
   | 0.37  
   
   | 10  | 2.26  
  | 10.5   
   | 351   
  | 146  
  | 29.0  | 0.35   | 10   | 2.19   
   | 10.3  | 340  | 142   |
| 14      | 2.19  | 10.3   
   | 340   | 139  | 29.3   
   
   | 0.57  
   
   | 15  | 2.17  
  | 10.2   
   | 336   
  | 138  
  | 27.0  | 0.55   | 15   | 2.10   
   | 10.0  | 326  | 133   |
| 17      | 2.11  | 10.0   
   | 322   | 127  | 27.0   
   
   | 0.75  
   
   | 18  | 2.09  
  | 6.6  
   | 318   
  | 126  
  | 25.0  | 0.73   | 18   | 2.02   
   | 9.7   | 309  | 122   |
| 19      | 2.05  | 9.8  
   | 299   | 120  | 26.3   
   
   | 0.84  
   
   | 19  | 2.03  
  | 9.7  
   | 296   
  | 118  
  | 24.2  | 0.81   | 20   | 1.97   
   | 9.2   | 287  | 115   |
| 10      | 2.11  | 6.6  
   | 311   | 142  | 32.2   
   
   | 0.36  
   
   | 10  | 2.09  
  | 8.6  
   | 308   
  | 141  
  | 29.7  | 0.34   | 10   | 2.03   
   | 9.6   | 299  | 137   |
| 14      | 2.03  | 9.6  
   | 299   | 134  | 30.0   
   
   | 0.56  
   
   | 15  | 2.01  
  | 9.5  
   | 296   
  | 132  
  | 27.7  | 0.54   | 15   | 1.95   
   | 6.3   | 287  | 128   |
| 17      | 1.96  | 9.3  
   | 283   | 122  | 27.7   
   
   | 0.73  
   
   | 18  | 1.94  
  | 9.3  
   | 280   
  | 121  
  | 25.6  | 0.71   | 18   | 1.88   
   | 9.1   | 272  | 118   |
| 19      | 1.90  | 9.2  
   | 263   | 115  | 26.9   
   
   | 0.82  
   
   | 19  | 1.89  
  | 9.1  
   | 260   
  | 114  
  | 24.8  | 0.79   | 20   | 1.83   
   | 8.9   | 252  | 110   |
| 10      | 1.93  | 9.3  
   | 278   | 135  | 33.0   
   
   | 0.35  
   
   | 10  | 1.91  
  | 9.2  
   | 275   
  | 133  
  | 30.4  | 0.33   | 10   | 1.85   
   | 9.0   | 267  | 129   |
| 14      | 1.85  | 9.0  
   | 266   | 126  | 30.7   
   
   | 0.54  
   
   | 14  | 1.83  
  | 8.9  
   | 263   
  | 125  
  | 28.3  | 0.52   | 15   | 1.78   
   | 8.7   | 256  | 121   |
| 17      | 1.78  | 8.8  
   | 252   | 116  | 28.4   
   
   | 0.71  
   
   | 18  | 1.77  
  | 8.7  
   | 249   
  | 115  
  | 26.2  | 0.68   | 18   | 1.71   
   | 8.5   | 242  | 111   |
| 18      | 1.74  | 9.8  
   | 234   | 109  | 27.6   
   
   | 0.79  
   
   | 19  | 1.72  
  | 8.5  
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  | 108  
  | 25.4  | 0.76   | 19   | 1.67   
   | 8.4   | 225  | 105   |
| Delta T | KW  | AMPS   
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  2.18         2.34         2.33         2.42         2.36         2.45         2.55         2.39         2.45         2.55           AMPS         8.6         9.0         9.3         9.6         9.9         9.8         10.0         10.4         10.6         10.9         11.2         11.5         11.5         11.5         11.7         11.7         12.1</td><td>Delta T 18 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 18 18 18 18 18 18 18 18 18 18 18 18 18</td><td>DeltaT         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         12         13         22         2.3         2.45         2.33         2.45         2.56         2.55<td>Delta T         18         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         10         10         12         2.3         2.45         2.35         2.45         2.55         2.35         2.45         2.55         <th< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10       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257         260         270         10<!--</td--><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         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        10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         10        
10         <t< td=""><td>KW         1.74         1.76         1.86         1.76         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.8         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0&lt;</td><td>KW         1.7         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         11         219         2.8         2.9         211         2.9         32         24         32         24         25         246         25         246         25         246         25         25         245         25         245         25         245         25         245         25         246         25         25         25         25         25         25         25         25         25         25         25         25         25         25         25</td></t<><td>KW         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.2         1.2         2.24         2.33         2.42         2.9         2.8         2.9         2.0<!--</td--><td>MSM         1</td><td>MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10</td><td>Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12         12</td></td></td></t<></td></t<></td></td></th<></td></td></t<> | DeltaT         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         12.1         2.05         2.11         2.18         2.34         2.33         2.42         2.36         2.45         2.55         2.39         2.45         2.55           AMPS         8.6         9.0         9.3         9.6         9.9         9.8         10.0         10.4         10.6         10.9         11.2         11.5         11.5         11.5         11.7         11.7         12.1 | Delta T 18 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 19 17 14 10 18 18 18 18 18 18 18 18 18 18 18 18 18 | DeltaT         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         12         13         22         2.3         2.45         2.33         2.45         2.56         2.55         2.55         2.55         2.55         2.55         2.55         2.55         2.55         2.55         2.55   
     2.55         2.55 <td>Delta T         18         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         10         10         12         2.3         2.45         2.35         2.45         2.55         2.35         2.45         2.55         <th< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         16         12         2.3         2.45         2.35         2.45         2.55         2.45         2.55</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         16         17         14         10         14         10         10         11         21         245         256         236         245         256         256         256         236         246         256         256         257         260         270         10<!--</td--><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         11         11         12         12         14         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         <t< td=""><td>KW         1.74         1.76         1.86         1.76         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.8         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0&lt;</td><td>KW         1.7         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18       
 17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         11         219         2.8         2.9         211         2.9         32         24         32         24         25         246         25         246         25         246         25         25         245         25         245         25         245         25         245         25         246         25         25         25         25         25         25         25         25         25         25         25         25         25         25         25</td></t<><td>KW         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.2         1.2         2.24         2.33         2.42         2.9         2.8         2.9         2.0<!--</td--><td>MSM         1</td><td>MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10</td><td>Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12         12</td></td></td></t<></td></t<></td></td></th<></td> | Delta T         18         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         10         10         12         2.3         2.45         2.35         2.45         2.55         2.35         2.45         2.55 <th< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         16         12         2.3         2.45         2.35         2.45         2.55         2.45         2.55</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         16         17         14         10         14         10         10         11         21         245         256         236         245         256         256         256         236         246         256         256         257         260         270         10<!--</td--><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17 
       14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         11         11         12         12         14         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         <t< td=""><td>KW         1.74         1.76         1.86         1.76         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.8         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0&lt;</td><td>KW         1.7         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         11         219         2.8         2.9         211         2.9         32         24         32         24         25         246         25         246         25         246         25         25         245         25         245         25         245         25         245         25         246         25         25         25         25         25         25         25         25         25         25         25         25         25         25         25</td></t<><td>KW         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.2         1.2         2.24         2.33         2.42         2.9         2.8         2.9         2.0<!--</td--><td>MSM         1</td><td>MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10</td><td>Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12        
12</td></td></td></t<></td></t<></td></td></th<> | Delta T         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         16         12         2.3         2.45         2.35         2.45         2.55         2.45         2.55 | Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         14         10         19         17         14         10         14         10         19         17         14         10         14         10         16         17         14         10         14         10         10         11         21         245         256         236         245         256         256         256         236         246         256         256         257         260         270         10 </td <td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         11         11         12         12         14         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         <t< td=""><td>KW         1.74         1.76         1.86         1.76         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.8         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0&lt;</td><td>KW         1.7         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         11         219         2.8         2.9         211         2.9         32         24         32         24         25         246         25         246         25         246         25         25         245         25         245         25         245         25         245         25         246         25         25         25         25         25         25         25         25         25         25         25         25         25         25         25</td></t<><td>KW         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.2         1.2         2.24         2.33         2.42         2.9         2.8         2.9         2.0      
  2.0         2.0<!--</td--><td>MSM         1</td><td>MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10</td><td>Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12         12</td></td></td></t<></td></t<></td> | Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10 <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         11         11         12         12         14         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         <t< td=""><td>KW         1.74         1.76         1.86         1.76         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.8         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0&lt;</td><td>KW         1.7         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10        
11         219         2.8         2.9         211         2.9         32         24         32         24         25         246         25         246         25         246         25         25         245         25         245         25         245         25         245         25         246         25         25         25         25         25         25         25         25         25         25         25         25         25         25         25</td></t<><td>KW         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.2         1.2         2.24         2.33         2.42         2.9         2.8         2.9         2.0<!--</td--><td>MSM         1</td><td>MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10</td><td>Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12         12</td></td></td></t<></td></t<> | Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         11         11         12         12         14         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10 <t< td=""><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         <t< td=""><td>KW         1.74         1.76         1.86         1.76         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.8         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0&lt;</td><td>KW         1.7         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17        
14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         11         219         2.8         2.9         211         2.9         32         24         32         24         25         246         25         246         25         246         25         25         245         25         245         25         245         25         245         25         246         25         25         25         25         25         25         25         25         25         25         25         25         25         25         25</td></t<><td>KW         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.2         1.2         2.24         2.33         2.42         2.9         2.8         2.9         2.0<!--</td--><td>MSM         1</td><td>MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10</td><td>Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12         12</td></td></td></t<> | Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10 <t< td=""><td>KW         1.74         1.76         1.86         1.76         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.8         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0&lt;</td><td>KW         1.7         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10</td><td>Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         11         219         2.8         2.9         211         2.9         32         24         32         24         25         246         25         246         25         246         25         25         245         25         245         25         245         25         245         25         246         25         25         25         25         25         25         25         25         25         25         25         25         25         25         25</td></t<> <td>KW         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0        
1.2         1.2         2.24         2.33         2.42         2.9         2.8         2.9         2.0<!--</td--><td>MSM         1</td><td>MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10</td><td>Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12         12</td></td> | KW         1.74         1.76         1.86         1.76         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.8         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0< | KW         1.7         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10 | Delta T         18         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         19         17         14         10         18         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         11         219         2.8         2.9         211         2.9         32         24         32         24         25         246         25         246         25         246         25         25         245         25         245         25         245         25         245         25         246         25         25         25         25         25         25         25         25         25         25         25         25         25         25         25 | KW         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.9         1.7         1.4         1.0         1.2         1.2         2.24         2.33         2.42         2.9         2.8         2.9         2.0 </td <td>MSM         1</td> <td>MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14  
      10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10</td> <td>Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12         12</td> | MSM         1 | MWH         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         17         14         10         10         10         17         14         10 | Deleat         18         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         19         17         14         10         18         17         14         10         18         17         14         10         17         16         13           KW         1.74         1.78         1.86         1.93         16         12         12         12         11         12         12         12         12         12         12         12         12         12         12         12         12         12 |

NOTE: Shaded area is ACCA (TVA) conditions High and low pressures are measured at the liquid and suction access fittings. \* IDB: Entering Indoor Dry Bulb Temperature

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MODEL: GPC1530M41

## **COOLING PERFORMANCE DATA**

## GPC1530M41\*

## **COOLING OPERATION**

## **EXPANDED PERFORMANCE DATA**

MODEL: GPC1530M41

Design Subcooling, 7 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

Outdoor Ambient Temperature

					ļ		ŀ				ŀ		Outc	door Am	Outdoor Ambient Temperature	mperatu	re					ľ				
					92		$\dashv$		8		+		. 82		_ ; _ ;		32	Ī		7	105			115		
	:			-	-	-	-	-	-	ŀ	ŀ	_  -	ering in	door We	Entering Indoor Wet Bulb Temperature	emperat		ì			į	ì	1		į	ì
BOI	Airtiow	4	ı	-			-	-1	_	-	4	-	-	-1	4	83	/9	7.1	66	8	/9	1.1	66	-1	/9	Į,
		MBh	T				+			30.8	32.9 2	27.5 28.1			_	27.5	29.3	31.4	25.5	26.1	27.9	29.8	23.6		25.8	27.6
		ה ה	1			$\neg$		ــا			+		1	٦	J.00	0.94	97.0	0.57	1.00	1.00	0.79 i	0.59	1.00	1.00		0.60 9
			1				4				4				4	OZ.	1,	14	70	R	٦/	14	18		16	13
	1181						1.95				-				4	2.26	2.35	2.45	2.32	2.38	2.47	2.57	2.41		2.58	2.68
		AMF					_								-	10.7	11.0	11.3	11.0	11.3	11.6	12.0	11.6		12.2	12.6
		H		237 2	255		280	265			315 3			3 358		370	391	407	387	416	440	458	427		486	909
		LOPR	Н			128 1	Н				Н				Н	135	147	157	133	141	154	164	138	146	160	170
		MBh					32.7	27.4 2	28.0 2	29.9	32.0   2	26.7 27.3	.3 29.2	2 31.2	26.1	26.7	28.5	30.4	24.8	25.3	27.1	28.9	23.0		25.1	26.8
		S/T		0.87 0			0.50				⊢				┝	0.89	0.73	0.54	0.99		0.76	0.56	1.00			0.57
		Delta T	t.				-				-				┢	21	18	14	21		18	14	20			13
8	1050	<u> </u>	H	L	١.	١.	1.93	1.90	l.,	2.03 2	┝	2.05 2.11	ľ.	1	2.18	2.24	2.33	2.42	2.29	2.36	2.45	2.55	2.39	l	2.55	2.65
		AMP				9.0	9.3	9.2	9.3		┝			3 10.6	-	10.6	10.9	11.2	10.9	11.2	11.5	11.9	11.5		12.1	12.5
		HI PR			252		_			299 3	311 2		22 340		340	998	387	403	383	412	435	454	423		481	501
		LOPR	H				⊢				⊢	120 127			H	134	146	155	132	140	153	163	136		158	168
		MBh			26.4	28.3	30.2	25.3 2	25.8 2		Н					24.6	26.3	28.1	22.9	23.4	25.0	26.7	21.2		23.1	24.7
		V.	T				╄				╀				╀	0.86	0.70	0.52	0.95		0.73	0.54	960			0.55
		T c Ho	T.				+				+	22 22			20.0	2 6	ξ.ς	15	220		2 2	15.0	20.0			3 7
	5		T	1 60 1	۱		+	١.,			+.		ľ	ľ	+	247	0 0	200	222	ľ	0 00 0	2 47	222		1 2	± 0
	200		T				+				+	1			+	7.17	07:7	2.33	2.63	2.23	65.3	74.7	2.32		7.47	70.7
		AMPS	t				+				+				+	10.3	10.6	11.0	10.7	10.9	11.2	9.11	11.2		11.8	12.2
		Ξ	+	227 2			+				$\dashv$		12 329		330	355	375	391	371	400	422	440	410		466	486
		LOPR			112 ,	123 1	131 1	112 1	119 1	130 1	138 1	116 123		5 143		130	142	151	128	136	148	158	132	141	153	163
												NOTE		Shaded area	re	AHRI rating	ting conditions	ions								
		MBh		29.4 3	30.0		33.5	28.7 2	29.3 3	30.6	Н	28.0 28	28.6 29.9	9 31.9	27.3	27.9	29.2	31.1	26.0	26.5	27.7	29.6	24.1	24.5		27.4
		S/T									0.70					1.00	0.91	0.74	1.00	1.00	0.95	0.77	1.00			0.77
		Delta T					18	22						18		22	21	18	20	21	20	18	19		19	17
	1181			I. I	1.82 1	1.89 1	Н		1.99 2		Н	2.09 2.15	15 2.23		2.23	2.29	2.38	2.47	2.34	2.40	2.50	2.60	2.44		2.60	2.71
		AMPS					_				-					10.8	11.1	11.4	11.1	11.4	11.7	12.1	11.7		12.3	12.7
		HI PR	1				$\dashv$				-				$\rightarrow$	374	395	412	391	420	444	463	432		490	512
		LOPR				129 1	_								_	136	149	159	134	143	156	166	139	148		172
		MBh					Н			29.8 3	Н	27.2 27.7			Н	27.1	28.3	30.2	25.2	25.7	26.9	28.7	23.4		24.9	26.6
		S/T		0.91 0			_				0.67 0				1.00	0.96	0.87	0.71	1.00	1.00	0.90	0.73	1.00	1.00 (		0.74
			7		22		_	23			4	23 23			+	23	22	19	22	ន	21	18	20		20	17
8	1050					.	+				-				_	2.26	2.35	2.45	2.32	2.38	2.47	2.57	2.41		 2.58	2.68
		AMPS			8.8		-	9.2			10.0					10.7	11.0	11.3	11.0	11.3	11.6	12.0	11.6		12.2	12.6
		H PR		237 2			280		286 3		-				_	370	391	407	387	416	440	458	427		486	206
		LOF				128 1	_						29 140	0 149		135	147	157	133	141	154	164	138	146	160	170
		MBh		26.3 2	26.8 2	28.1 3	30.0	25.7 2	26.2	27.5			25.6 26.8		-	25.0	26.2	27.9	23.3	23.7	24.8	26.5	21.6	22.0	23.0	24.6
		S/T		0.88.0	0.85 (	0.76 0	0.62 0	0.91 0	0.88 0		0.64 0		90 0.81	1 0.66		0.93	0.84	0.68	1.00	96.0	0.87	0.71	1.00	0.97	0.88	0.71
		Delta T					19		23		19			2 19	24	23	22	19	23	23	22	19	22	21	20	18
	919	WX 6		1.70 1	1.75 1	1.82 1	1.89	1.87 1	1.92 1	1.99 2	2.07	2.01 2.06	36 2.15	5 2.23	2.14	2.20	2.28	2.37	2.25	2.31	2.40	2.49	2.34	2.40	2.50	2.60
		AMPS			9.8	8.9	9.1		9.2	9.5	8   2.6	9.7 9.9			H	10.4	10.7	11.1	10.8	11.0	11.3	11.7	11.3	11.6	11.9	12.3
		HI PR				261 2			277 2			293 31	315 333			329	379	395	375	404	426	445	415	, 446	471	491
		LOPR		107 1	114	124 1	132	113	120 1	131 1	39 1	117 12	125 136	3 145	123	131	143	152	129	137	150	160	133	142	155	165
-	* Enteri	Entering Indoor Dry Bulb Temperature	ny Bulb	Temper	ature			ž	NOTE: SI	haded a	ırea is ⊬	HRI Rat	Shaded area is AHRI Rating Conditions	litions				KW = 1	Total sy	otal system power	wer					
в Нід⊦а 15	nd low p	High and low pressures are measured at the liquid and suction access fittings	re measu	ıred at	the liqu	id and s	uction 8	access 1	ittings.									AMPS:	Unit a	πps(∞ι	mp.+eva	aporator	r + cond	AMPS: Unit amps ( $\infty$ mp.+ evaporator + $\infty$ ndenser fan motors)	motor	(s.

## **EXPANDED PERFORMANCE DATA**

Design Subcooling, 7 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

												0	utdoor	· Ambie	Outdoor Ambient Temperature	erature										
				9	Š			22	2			82				62				105				115		
											E	-ntering	Indoo	r Wet B	Entering Indoor Wet Bulb Temperature	peratur	9									
IDB*	Airflow		69	ည	<i>L</i> 9	1.1	69	63	<b>29</b>	71	29	63	29	71	29	ස	29	7.1	29	63	29	71	9 69	63	. 29	71
		MBh	35.6	36.9	40.4		34.8	36.0	39.5		33.9	35.2	38.5		33.1	34.3	37.6		31.5	32.6	35.7	•	29.1 30	30.2	33.1	
		S/T	0.72	09.0	0.41	-	0.74	0.62	0.43	-	0.76	0.64 (	0.44	-	0.79	99.0	0.45		0.82	0.68	0.47		0.82 0.	0 69.0	0.48	
		Delta T	18	16	12		18	16	12		18	16	12	-	18	16	12		18	16	12		17 1	15	11	
	1294	KW	2.20	2.26	2.35	1	2.41	2.48	2.57	-	2.60	2.67	2.77		2.76	2.83	2.95	-	2.90	2.98	3.09	-	3.02 3.	3.10 3	3.22	
		AMPS	10.8	11.0	11.3	-	11.5	11.7	12.1	-	12.3	12.6	12.9	-	13.0	13.3	13.7	-	13.7	14.0	14.4	•	14.4 14	14.7 1	15.2	-
		HI PR	237	255	269	-	566	286	302	-	302	325	344	-	344	371	391	-	387	417	440		428 4	461 4	486	
		LO PR	109	116	127	-	115	123	134		120	128	139		126	134	146		132	141	153	-	137 1	145 1	159	
		MBh	34.6	35.8	39.2		33.8	35.0	38.3		33.0	34.2	37.4	,	32.1	33.3	36.5		30.5	31.7	34.7	-	28.3 29	29.3	32.1	
		S∕T	0.68	0.57	0.40		0.71	0.59	0.41	ŀ	0.73	0.61	0.42		0.75	0.63	0.43		0.78	0.65	0.45	,	0.78 0.	0.66	0.45	
		Delta T	19	16	12	-	19	17	13	-	19	17	13	-	19	17	13	-	19	16	12		18 1	15	12	
20	1150	KW	2.18	2.24	2.32	•	2.39	2.45	2.55	-	2.57	2.64	2.74	-	2.73	2.81	2.92	-	2.87	2.95	3.06	-	2.99 3.	3.07 3	3.19	
		AMPS	10.7	10.9	11.2	-	11.4	11.6	12.0	-	12.2	12.5	12.8	-	12.9	13.2	13.6	-	13.6	13.9	14.3	•	14.3 14	14.6 1	15.1	-
		H R	235	252	267	-	263	283	299	-	299	322	340	-	341	367	387	-	384	413 ,	436		424 4	456 4	482	
		LO PR	108	115	126	-	114	122	133	1	119	126	138	-	125	133	145		131	139	152		135 1	144	157	
		MBh	31.9	33.1	36.2	-	31.2	32.3	35.4	-	30.4	31.5	34.5	-	29.7	30.8	33.7		28.2	29.2	32.0	-	26.1 2	27.1 2	29.7	
		S/T	99.0	0.55	0.38	-	0.68	0.57	0.40	-	0.70	0.58 (	0.41		0.72	09:0	0.42	1	0.75 (	0.63 (	0.43	-	0.76 0.	0.63 0	0.44	
		Delta T	19	17	13	-	19	17	13	-	19	17	13		20	17	13	-	19	17	13	-	18 1	16	12	
	1006	KW	2.11	2.17	2.26	-	2.32	2.38	2.47	-	2.50	2.56	2.66		2.65	2.72	2.83	-	2.79	2.86	2.97	-	2.90 2.	2.98 3	3.10	
		AMPS	10.5	10.7	11.0	-	11.2	11.4	11.7	-	12.0	12.2	12.5	-	12.6	12.9	13.3	-	13.3	13.6	14.0	-	14.0 14	14.3 1	14.7	
		H R	228	245	259	-	255	275	290	-	290	312	330	-	331	356	376	-	372	400	423	-	411 4	442 4	467	
		LO PR	105	112	122		111	118	129		115	123	134		121	129	141		127	135	147	-	131 1	140 1	152	

_											_	_		_	_	_	_	_	_	_	
35.4	0.41	10	3.39	15.8	512	171	34.4	0.39	11	3.35	15.7	202	169	31.8	0.37	11	3.25	15.3	492	164	
33.0	0.63	15	3.26	15.3	491	160	32.1	0.60	15	3.22	15.2	486	159	29.6	0.58	16	3.13	14.8	472	154	
30.5	0.84	18	3.13	14.9	465	147	29.6	0.80	19	3.10	14.7	461	145	27.3	0.77	19	3.01	14.4	447	141	
29.6	0.94	70	3.05	14.6	432	138	28.8	68'0	21	3.02	14.4	428	137	26.6	98'0	17	2.93	14.1	415	133	
38.3	0.40	11	3.25	15.0	464	165	37.1	0.39	11	3.22	14.9	459	163	34.3	0.37	12	3.12	14.5	445	159	
35.7	0.63	16	3.13	14.6	445	155	34.6	0.60	17	3.10	14.4	440	154	31.9	0.58	17	3.00	14.1	427	149	
32.9	0.83	19	3.01	14.1	421	142	32.0	0.79	20	2.98	14.0	417	141	29.5	0.76	21	2.89	13.7	404	136	
32.0	0.93	17	2.93	13.9	391	133	31.1	88.0	22	2.90	13.7	387	132	28.7	98'0	22	2.82	13.4	928	128	
40.3	0.39	11	3.09	14.2	412	158	39.1	0.37	12	3.06	14.1	408	156	36.1	0.36	12	2.97	13.8	396	151	
37.5	09.0	16	2.98	13.8	395	148	36.4	0.58	17	2.95	13.7	391	146	33.6	0.56	17	2.86	13.4	380	142	
34.7	0.80	20	2.86	13.4	374	136	33.7	0.76	21	2.84	13.3	37.1	134	31.1	0.73	71	2.75	13.0	329	130	
33.7	0.89	21	2.79	13.1	348	127	32.7	0.85	22	2.76	13.0	344	126	30.2	0.82	23	2.68	12.7	334	122	difficu
41.3	0.38	11	2.91	13.4	362	150	40.1	0.36	12	2.88	13.3	358	149	37.0	0.35	12	2.80	13.0	348	144	(V/V)
38.5	0.59	16	2.80	13.0	347	141	37.3	0.56	17	2.77	12.9	344	139	34.5	0.54	17	2.69	12.6	333	135	( < 0
35.5	0.77	20	2.69	12.7	329	129	34.5	0.74	20	2.67	12.6	325	128	31.8	0.71	21	2.59	12.3	316	124	Shade on a second (TVA) And the second
34.5	0.87	17	2.62	12.4	302	121	33.5	0.83	22	2.60	12.3	302	120	6'08	08'0	72	2.52	12.0	293	116	2
42.3	0.37	11	2.70	12.5	318	144	41.1	0.35	12	2.67	12.4	315	143	37.9	0.34	12	2.60	12.1	306	139	NOTE: Q
39.4	0.57	16	2.60	12.1	305	136	38.3	0.54	17	2.57	12.1	302	134	35.3	0.53	17	2.50	11.8	293	130	Ξ
36.4	0.76	20	2.50	11.8	289	124	35.3	0.72	20	2.48	11.7	286	123	32.6	69.0	21	2.40	11.5	278	119	
35.4	0.84	21	2.44	11.6	269	117	34.3	0.81	22	2.41	11.5	266	116	31.7	0.78	22	2.34	11.2	258	112	
43.3	0.35	11	2.46	11.7	284	137	42.0	0.34	11	2.44	11.6	281	135	38.8	0.33	12	2.37	11.4	272	131	of Iro
40.3	0.55	16	2.37	11.4	272	128	39.2	0.53	16	2.35	11.3	269	127	36.2	0.51	17	2.28	11.1	261	123	210000
37.3	0.73	19	2.28	11.1	258	117	36.2	0.69	20	2.26	11.0	255	116	33.4	0.67	20	2.19	10.8	247	113	1 A I I A
36.2	0.81	21	2.22	10.9	239	110	35.1	0.78	22	2.20	10.8	237	109	32.4	0.75	22	2.14	10.6	230	106	200
MBh	S/T	Delta T	ΚW	AMPS	H R	LO PR	MBh	S/T	Delta T	ΚM	AMPS	H R	LO PR	MBh	S/T	Delta T	KW	AMPS	H PR	LO PR	*IDB: Exterior Indeer Day Bulk Temporature
			1294		·				!	1150	·	·	•				1006				* !ADI
							_			72											

NOTE: Shaded area is ACCA (TVA) conditions High and low pressures are measured at the liquid and suction access fittings. IDB: Entering Indoor Dry Bulb Temperature

**MODEL: GPC1536M41** 

## **EXPANDED PERFORMANCE DATA**

MODEL: GPC1536M41

Design Subcooling, 7 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

				3		ľ		¥		-		Ont	door Am	bient Te	Outdoor Ambient Temperature	e e			•		ŀ		445		П
				ဌ	١			S)		-	Ę	85 ering In	door We	Hallb T	85 Entering Indoor Wet Bulb Temperature	S all			105		-		115		T
IDB*	Airflow		29	63	<b>29</b>	71	29	63	29	71	59 63	3 67	7 71	29	ස	67	71	29	63	29	71	29	63 6	2 29	71
		MBh	36.8	37.6	40.2	_	36.0	36.8	39.3	42.0 3	35.1	.9 38.4		34.3	35.0	37.4	40.0	32.6	33.3		38.0	30.2	30.8		35.2
		S/T	0.89	0.84	0.68		_	0.87		_		9	72 0.54		0.92	0.75	0.56	1.00	0.95			0	9		0.59
		Delta T	23	22	19	H			20	16 2	24 23	3 20		24	23	20	16	23	23	20	16	21	21 1		15
	1294	Ϋ́	2.25	2.30	2.39	-				-				4	2.89	3.01	3.12	2.96	3.04		-				3.42
		AMPS	11.0	11.2	11.5	_				-				4	13.5	13.9	14.3	14.0	14.3	14.7	4				15.9
		표	242	260	275	286	271	292	308	321 3	308 332	32 351	1 366	351	378	366	416	395	425	449	-	437	470 49	496 5	518
		LO PR	112	119	130	_	118							_	137	149	159	135	143	157	167			32 1	73
		MBh	35.8	36.6	39.0	$\vdash$								Н	34.0	36.3	38.8	31.6	32.3						4.2
	_	S/T	0.85	0.80	0.65	-			7	_	0.91 0.85				0.88	0.71	0.53	0.97	0.91	_		~	٥.		0.56
	_	Delta T	24	23	20	16	25	24	21	16 2		24 21	16		24	21	17	25	23	20	16	23	22 1	19 1	15
8	1150	ΚW	2.22	2.28	2.37	2.46	2.44	2.50	2.60	2.70 2.		39 2.80	0 2.91	Н	2.86	2.98	3.09	2.93	3.01	3.13	3.25	3.05	3.13 3.	3.26 3.	3.39
	_	AMPS	10.9	11.1	11.4	Н	11.6	11.8	12.1	12.5	12.4 12.7	7 13.0	.0 13.4	13.1	13.4	13.8	14.2	13.9	14.1	14.6	15.0	14.6 1	14.9 15	15.3 1	15.8
	_	Ξ	239	258	272	284	269	289		318 3	305 32	329 347	7 362	_	374	395	412	391	421	445	464	432	465 4	491 5	512
		LO PR	110	117	128	137	117			┢				⊢	136	148	158	133	142	155	165				71
		MBh	33.0	33.7	36.0			33.0	35.2	37.6	31.5 32	2 34.4	.4 36.7		31.4	33.5	35.8	29.2	29.8	31.9	34.0	27.0 2	27.6 28	29.5 3	31.5
	_	SYT	0.82	0.77	0.63	-				⊢				⊢	0.85	69.0	0.51	0.94	0.88		0.53	0.94			0.54
	_	Delta T	25	24	21	t			21	-				₩	24	21	17	25	24		┝			19	16
	1006	ΧX	2.16	2.21	2.30	-	2.36	l.,		2.62	2.55 2.61	ľ	ľ	2 2.71	2.78	2.89	3.00	2.84	2.92	<u></u>	ļ.,	2.96	3.04 3.		3.28
	_	AMPS	10.6	10.8	11.1	11.5			11.9	⊢				⊢	13.1	13.5	13.9	13.5	13.8		┢				15.4
	_	ΞΞ	232	250	264	-				⊢				⊢	363	383	400	380	409	431	╁				497
		LO PR	107	114	124	133	113	120		╀				┾	131	14	153	129	138	150	160				166
						1				ł	z		8	<u>r</u> e	¥	_	Suc				ĺ				1
		MBh	37.5	38.2		┢	36.6		39.1	41.7   3	35.7 36		2 40.7	7 34.9			39.7	33.1	33.8		_	30.7	31.3		5.0
		Σ	9. 29.	0.90	0.82	0.66		0.94	l	╄		0.96 0.87		1.00	0.99	0.89	0.73	1.00	1.8	0.93	0.75			0.94 0.	0.76
		Delta T	25	25		-				┝				_		24	20	24	24		_				19
	1294	ΚŅ	2.27	2.33	2.42	-	2.48	2.55		2.76 2	2.68 2.7	2.75 2.85		-		3.04	3.16	2.99	3.07		3.32	3.11	_	3.32 3.	3.45
	_	AMPS	11.0	11.3	11.6	-	ı			⊢				_		14.0	14.5	14.1	14.4		┡				16.1
	_	王	244	263	277	┢			311	┢	312 33			⊢		403	421	399	430		<b>!</b>	441			523
		LO PR	113	120	131	139	119			147 1			4 153			151	161	136	145	158			150 16		174
		MBh	36.4	37.1	38.9			36.2	38.0 2	40.5	34.7 35	35.4 37.0		5 33.9		36.1	38.6	32.2	32.8	34.3	36.6	29.8	30.4 31	31.8 33	33.9
	_	S/T	0.89	0.86	0.78	0.63	0.93	0.89	0.81 (	0.65 0.	0.95 0.92	92 0.83	3 0.67	Н	0.95	0.85	69.0	1.00	0.98	0.89	0.72	1.00 (	0.99 0.	0.89 0.	.72
	_	Delta T	56	56	24	21		26	24	21 2	26 26	6 24	4 21		20	25	21	26	56	24	21	24			20
83	1150	KW	2.25	2.30	2.39	$\vdash$				Ĺ					2.89	3.01	3.12	2.96	3.04		-			` '	3.42
	_	AMPS	11.0	11.2	11.5	11.8	11.7		12.2	_					13.5	13.9	14.3	14.0	14.3	14.7		_			15.9
	_	H PR	242	260	275	286	271			-					378	336	416	395	425	449					518
		LO PR	112	119	130	_	118	125		146 1	122 13	130 142	2 152	129	137	149	159	135	143	157	167	139	148 16	162 1	173
		MBh	33.6	34.2	32.9	38.3	32.8	33.4	35.0	37.4 3		32.6 34.2	.2 36.5	5 31.2	31.9	33.4	35.6	29.7	30.3	31.7		27.5	28.0 28	29.4 3	31.3
	_	SYT	98.0	0.83	0.75	_				-		38 0.80		5 0.94	0.91	0.82	29.0	0.98	0.95	0.85	0.69	0.99	0.95 0.	0.86 0.	0.70
	_	Delta T	56	56	22	21	27	26	25	22 2	27 26	6 25	5 22	27	22	25	22	27	56	25	21	25	24 2	23 2	20
	1006	ΚW	2.18	2.24	2.32	2.42	2.39	2.45		2.65 2.	2.57 2.64	34 2.74	74 2.85	5 2.73	2.81	2.92	3.03	2.87	2.95	3.06	3.19	2.99	3.07 3.	3.19 3.	3.32
		AMPS	10.7	10.9	11.2	-						-			13.2	13.6	14.0	13.6	13.9		$\vdash$				15.5
	_	H PR	234	252	266	278	263	283		312 2				341	367	387	404	383	413	436	454				502
		LO PR	108	115		134	114	122	133	141 1	119 12	126 138	8 147	125	133	145	154	131	139	152	162	135	144 1	157 1	29
*	Entering I	Entering Indoor Dry Bulb Temperature	lb Temp	erature		,	_	NOTE: S	Shaded	area is A	Shaded area is AHRI Rating Conditions	ing Con	ditions				KW=T	otal sys	< W = Total system power	ver		-			

High and low pressures are measured at the liquid and suction access fittings. \* Entering Indoor Dry Bulb Temperature

KW = Total system power

AMPS: Unit amps (comp. + evaporator + condenser fan motors)

## **EXPANDED PERFORMANCE DATA**

Design Subcooling, 7°F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

												Õ	utdoor,	Ambien	Outdoor Ambient Temperature	rature										٦
				9	2			75				82				95				105				115		
											Ē	tering	Indoor	WetBu	<b>Entering Indoor Wet Bulb Temperature</b>	erature	•									
IDB*	Airflow		29	63	29	71	29	63	29	71	29 (	63 (	2 29	71	29 (	63	29	71	29	63	29	71	29 (	63 (	. 29	71
		MBh	41.2	42.7	46.8	-	40.2	41.7	45.7	رن	39.3 4	40.7 4	44.6	ج	38.3 3	39.7	43.5	-	36.4	37.7	41.3	-	33.7 3	35.0 3	38.3	
		S/T	0.73	0.61	0.42	-	92.0	0.63	0.44	) -	0.78 0.	0.65 0	0.45	- 0	0.80	0.67	0.46	-	0.83	0.70	0.48	) -	0.84 0	0.70	0.49	
		Delta T	18	16	12	-	18	16	12	-	, 61	. 91	12		. 61	16	12	-	18	16	12	-		. 15	11	
	1519	KW	2.49	2.56	2.66	•	2.73	2.80	2.91	- 2	2.94 3.	3.02	3.13	- 3	3.12 3	3.21	3.33	-	3.28	3.37	3.50	-	3.42 3	3.51 3	3.65	
		AMPS	12.1	12.4	12.7	-	12.9	13.2	13.6	١	13.9 14	14.2 1	14.6	- 1	14.7 1	15.0	15.4	-	15.5	15.8	16.3	- 1	16.3 1	16.7 1	17.1	-
		HI PR	239	257	271		268	288	305	-	305	328 3	346	- 3	347 3	374	394		330	420	444	, <u> </u>	431 4	464 4	490	
		LOPR	112	119	130	-	118	126	137		123 1	131 1	143	- 1	129 1	137	150	-	135	144	157	-	140 1	149 1	163	
		MBh	40.0	41.5	45.4		39.1	40.5	44.4	-	38.1 3	39.5 4	43.3	- 3	37.2 3	38.6	42.3		35.3	9.98	40.1	-	32.7 3	33.9 3	37.2	
		S/T	0.70	0.58	0.40		0.72	09.0	0.42	-	0.74 0.	0.62 0	0.43	-	0.77 0	0.64	0.44		0.80	0.66	0.46	o -	0.80	0.67	0.46	
		Delta T	19	16	12	-	19	17	13	-	, 61	. 41	13	-	19	17	13	-	19	17	13	-	18	. 15	12	-
2	1350	KW	2.47	2.53	2.63	•	2.70	2.77	2.88	- 2	2.91 2	2.99 3	3.10	- 3.	3.09 3	3.18	3.30	-	3.25	3.34	3.47	-	3.39 3	3.47 3	3.61	
		AMPS	12.0	12.0 12.3	12.6	•	12.8	13.1	13.5	٠	13.8 1	14.1 1	14.5	- 1,	14.6	14.9	15.3	-	15.4	15.7	16.2	- 1	16.2 1	16.5 1	17.0	
		HI PR	236	254	269	-	265	286	301	-	302 3	325 3	343	- 3	344 3	370	391	-	387	416	439	-	427 4	460 4	485	-
		LOPR	111	118	129	-	117	125	136	-	122 1	129 1	141	- 1	128 1	136	148	-	134	143	156	-	139 1	147 1	161	
		MBh	36.9	38.3	41.9	-	36.1	37.4	41.0	-	35.2 3	36.5 4	40.0	- 3	34.3 3	35.6	39.0	-	32.6	33.8	37.1	-	30.2 3	31.3 3	34.3	
		S/T	29.0	0.56	0.39	-	0.70	0.58	0.40	) -	0.72 0.	0.60	0.41	0 -	0.74 0	0.62	0.43	-	0.77	0.64	0.44	) -	0.77 0	0.65 0	0.45	
		Delta T	19	17	13		20	17	13		, 02	. 11	13	-	. 50	17	13	-	19	17	13		18	. 91	12	
	1181	KW	2.39	2.46	2.55		2.62	2.69	2.80	- 2	2.82 2	2.90 3	3.01	- 3	3.00 3	3.08	3.20	1	3.15	3.24	3.36	-	3.28 3	3.37 3	3.50	
		AMPS	11.8	12.0	12.3	-	12.5	12.8	13.2	-	13.4 1	13.7 1	14.1	- 1	14.2 1	14.5	14.9	-	15.0	15.3	15.8	- 1	15.8 1	16.1	16.6	-
		HI PR	229	247	261		257	277	292	-	293 3	315 3	333	- 3	333 3	359	379	-	375	404	426	-	414 4	446 4	471	-
		LOPR	108	114	125	-	114	121	132	-	118 1	126 1	137	- 1	124 1	132	144	-	130	138	151	· -	134 1	143 1	156	-

	MBh	41.9	43.1	46.7	50.1	40.9	42.1	45.6	-				47.8	39.0	40.1	43.4	46.6	37.0	38.1		Н				41.0
	S/T	0.83	0.74	0.56	0.36	0.86	0.77	0.58	0.38	0.88 (	0.79	0.60	0.39	0.91	0.82	0.62	0.40	0.95	0.85	0.64	0.41	0.96 C	0.85 (	0.65 0	0.42
	Delta T	21	19	16	11	21	20	16	11	21	20	16	11	22	20	16	11	21	20	16	11	20	18	15	10
1519	ΚM	2.51	2.58	2.68	2.79	2.76	2.83	2.94	3.06	2.97	3.05	3.17	3.29	3.16	3.24	3.37	3.50	3.32	3.40	3.54	3.68	3.45 3	3.54	3.68 3	3.83
	AMPS	12.2	12.5	12.8	13.2	13.0	13.3	13.7	14.1	14.0	14.3	14.7	15.2	14.8	15.1	15.6	16.1	15.6	16.0	16.4	17.0	16.4 1	16.8	17.3 1	17.9
	HI PR	241	260	274	286	271	291	308	321	308	331	320	365	351	37.7	398	416	394	425	448	468	436 ,	469	495 5	517
	LOPR	113	120	131	140	119	127	139	148	124	132	144	154	130	139	151	161	137	145	159	169	. 141	150	164 1	175
	MBh	40.7	41.9	45.3	48.7	39.7	40.9	44.3	47.5	38.8	39.9	43.2	46.4	37.8	39.0	42.2	45.3	35.9	37.0	40.1	43.0	33.3	34.3	37.1 3	39.8
	S/T	0.79	0.71	0.54	0.35	0.82	0.74	0.56	0.36	0.84 (	0.75	0.57	0.37	0.87	0.78	0.59	0.38	06.0	0.81	0.61	0.39	0.91 C	0.82	0.62 0	0.40
	Delta T	22	20	17	11	22	21	17	12	22	21	17	12	22	21	17	12	22	20	17	12	21	19	16	11
1350	KW	2.49	2.56	2.66	2.76	2.73	2.80	2.91	3.03	2.94	3.02	3.14	3.26	3.13	3.21	3.33	3.47	3.28	3.37	3.50	3.64	3.42	3.51	3.65	3.79
	AMPS	12.1	12.4	12.7	13.1	12.9	13.2	13.6	14.0	13.9	14.2	14.6	15.0	14.7	15.0	15.4	15.9	15.5	15.8	16.3	16.8	16.3 1	16.7	17.1 1	17.7
	H R	239	257	271	283	268	288	305	318	305	328	346	361	347	374	395	411	391	420	444	463	432 ,	464 ,	490 5	511
	LOPR	112	119	130	138	118	126	137	146	123	131	143	152	129	137	150	160	135	144	157	167	. 140	149	163 1	173
	MBh	37.5	38.7	41.8	44.9	36.7	37.8	40.9	43.9	35.8	36.9	39.9	42.8	34.9	36.0	38.9	41.8	33.2	34.2	37.0	39.7	30.7	31.6	34.3 3	36.8
	S/T	0.77	0.68	0.52	0.33	62'0	0.71	0.54	0.35	0.81 (	0.73	0.55	0.35	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.88	0.79	0.59 0	0.38
	Delta T	22	21	17	12	23	21	17	12	23	21	17	12	23	71	17	12	23	21	17	12	21	19	16	11
1181	KW	2.42	2.48	2.58	2.68	2.65	2.72	2.82	2.94	2.85	2.93	3.04	3.16	3.03	3.11	3.23	3.36	3.19	3.27	3.40	3.53	3.32 3	3.41	3.54 3	3.68
	AMPS	11.9	12.1	12.4	12.8	12.6	12.9	13.3	13.7	13.6	13.8	14.2	14.7	14.3	14.6	15.1	15.6	15.1	15.4	15.9	16.4	15.9 1	16.2	16.7 1	17.3
	HI PR	232	249	263	275	260	280	295	308	296	318	336	320	337	362	383	336	379	408	431	449	419 4	450 ,	476 4	496
	LOPR	109	116	126	134	115	122	133	142	119	127	139	148	125	133	145	155	131	140	152	162	. 136	. 441	158 1	168
,			H = 0					2	Ĺ	E CO		ĺ	(												I

NOTE: Shaded area is ACCA (TVA) conditions High and low pressures are measured at the liquid and suction access fittings. \* IDB: Entering Indoor Dry Bulb Temperature

MODEL: GPC1542M41

# **EXPANDED PERFORMANCE DATA**

**COOLING OPERATION** 

Design Subcooling, 7°F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection. MODEL: GPC1542M41

)		_										ľ	7.4.1	A America		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										Γ
										j				AMDIE	ant lem	Ourdoor Ambient Temperature		j								
				65	2			75	2			85				92				105	2			115		
											_	Enterin	gIndoo	r Wet E	ulb Ten	Entering Incbor Wet Bulb Temperature	Э.									
IDB*	Airflow		29	63	67	71	29	63	29	71	29	63	29	71	29	ස	29	71	29	63	29	71	29	63	29	71
		MBh	42.6	43.6	46.6	49.8	41.7	42.6	45.5	48.6	40.7	41.5	44.4	47.5	39.7	40.5	43.3	46.3	37.7	38.5	41.1	0.44	34.9	35.7	38.1	40.7
		S/T	0.91	0.86	0.70	0.52	0.95	0.89	0.72	0.54	0.97	0.91	0.74	0.55	1.00	0.94	92.0	0.57	1.00	1.00	0.79	0.59	1.00	1.00	0.80	09.0
		Delta T	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	23	23	20	16	21	22	18	15
	1519	ΚM	2.54	2.61	2.71	2.82	2.78	2.86	2.97	3.09	3.00	3.08	3.20	3.32	3.19	3.27	3.40	3.54	3.35	3.44	3.57	3.71	3.49	3.58	3.72	3.87
		AMPS	12.3	12.6	12.9	13.3	13.1	13.4	13.8	14.2	14.1	14.4	14.8	15.3	14.9	15.2	15.7	16.2	15.8	16.1	16.6	17.1	. 9.91	16.9	17.4	18.0
		H PR	244	262	277	289	273	294	311	324	311	332	353	698	354	381	402	420	398	429	453	472	440	474	200	522
		LOPR	114	122	133	141	121	128	140	149	125	133	146	155	132	140	153	163	138	147	160	171	143	152	166	177
		MBh	41.4	42.3	45.2	48.3	40.4	41.3	14.1	47.2	39.5	40.3	43.1	46.1	38.5	39.4	42.0	44.9	36.6	37.4	39.9	42.7	33.9	34.6	37.0	39.6
		S/T	28.0	0.82	99.0	0.50	06.0	0.85	0.69	0.51	0.93	0.87	0.71	0.53	96.0	0.90	0.73	0.54	66.0	0.93	0.76	0.57	1.00 (	0.94	0.76 (	0.57
		DeltaT	52	24	20	16	22	24	21	17	22	24	21	17	22	24	21	17	22	24	21	16	23	22	19	15
8	1350	ΚW	2.51	2.58	2.68	2.79	2.76	2.83	2.94	3.06	2.97	3.05	3.17	3.29	3.16	3.24	3.37	3.50	3.32	3.40	3.54	3.68	3.45	3.55	3.68	3.83
		AMPS	12.2	12.5	12.8	13.2	13.0	13.3	13.7	14.1	14.0	14.3	14.7	15.2	14.8	15.1	15.6	16.1	15.6	16.0	16.4	17.0	16.4	16.8	17.3	17.9
		HI PR	241	260	274	286	271	291	308	321	308	331	320	365	351	37.7	336	416	395	425	448	468	436	469	495	517
		LOPR	113	120	131	140	119	127	139	148	124	132	144	154	130	139	152	161	137	145	159	169	141	150	164	175
		MBh	38.2	39.0	41.7	44.6	37.3	38.1	40.7	43.6	36.4	37.2	39.8	42.5	35.5	36.3	38.8	41.5	33.8	34.5	36.9	39.4	31.3	32.0	34.1	36.5
		S/T	0.84	0.79	0.64	0.48	0.87	0.82	99.0	0.50	0.89	0.84	89.0	0.51	0.92	0.86	0.70	0.53	96.0	0.90	0.73	0.55	0.96	06.0	0.74 (	0.55
		DeltaT	52	24	21	17	52	24	21	17	22	24	21	17	22	24	21	17	22	24	21	17	23	22	20	16
	1181	ΚM	2.44	2.50	2.60	2.71	2.67	2.74	2.85	2.97	2.88	2.96	3.07	3.19	3.06	3.14	3.27	3.40	3.22	3.30	3.43	3.57	3.35	3.44	3.57	3.72
		AMPS	11.9	12.2	12.5	12.9	12.7	13.0	13.4	13.8	13.7	13.9	14.3	14.8	14.5	14.8	15.2	15.7	15.3	15.6	16.0	16.6	. 0.91	16.4	16.9	17.4
		H PR	234	252	266	277	263	283	298	311	299	321	339	354	340	366	387	403	383	412	435	454	423	455	480	501
		LOPR	110	117	127	136	116	123	135	143	120	128	140	149	127	135	147	157	133	141	154	164	137	146	159	170
												NOTE:	Shaded	area re	flects Al	-lRl ratin <sub>e</sub>	Shaded area reflects AHRI rating conditions	SU								

													ا ر	•	U	•	J	_	_	IV	-	
	40.5	0.78	19	3.91	18.2	527	178	39.3	0.74	20	3.87	18.0	522	177	36.3	0.71	20	3.75	17.6	909	171	
	37.9	96.0	22	3.76	17.6	202	168	36.8	0.91	23	3.72	17.4	200	166	34.0	0.88	23	3.61	17.0	485	161	
	36.2	1.00	22	3.62	17.1	479	153	35.1	1.00	24	3.58	16.9	474	152	32.4	86.0	25	3.47	16.5	460	147	
	32.5	1.00	21	3.52	16.7	445	144	34.5	1.00	23	3.49	16.6	440	143	31.8	1.00	25	3.38	16.2	427	139	
	43.7	0.77	20	3.75	17.3	477	172	42.4	0.73	21	3.71	17.1	472	171	39.1	0.71	22	3.60	16.7	458	166	
	40.9	0.95	24	3.61	16.7	457	162	39.7	0.90	24	3.57	16.6	453	160	36.7	0.87	25	3.47	16.2	439	156	wer
	39.1	1.00	24	3.47	16.2	433	148	37.9	1.00	56	3.44	16.1	429	147	32.0	0.97	56	3.34	15.7	416	142	stem po
	38.3	1.00	23	3.38	15.9	402	139	37.2	1.00	25	3.35	15.8	398	138	34.4	1.00	27	3.25	15.4	387	134	KW = Total system power
SUS	46.0	0.74	21	3.57	16.3	424	165	44.6	0.71	22	3.54	16.2	420	163	41.2	89.0	22	3.43	15.8	407	158	KW=T
area reflects AHRI rating conditions	43.1	0.91	24	3.43	15.8	407	155	41.8	0.87	25	3.40	15.7	402	153	38.6	0.84	25	3.30	15.3	330	148	
4HRI ratir	41.1	1.00	25	3.30	15.4	382	142	39.9	0.97	26	3.27	15.2	381	140	36.9	0.93	27	3.17	14.9	370	136	
eflects /	40.4	1.00	24	3.22	15.0	358	133	39.2	1.00	27	3.19	14.9	354	132	36.2	0.97	27	3.09	14.6	344	128	
darear	47.1	0.72	20	3.36	15.4	372	157	45.7	0.69	21	3.32	15.3	698	155	42.2	0.66	22	3.23	14.9	358	150	suc
Shaded	44.2	0.89	24	3.23	14.9	357	147	42.9	0.84	25	3.20	14.8	353	146	39.6	0.81	25	3.10	14.4	343	141	Conditions
NOTE	42.2	0.98	25	3.11	14.5	338	135	40.9	0.94	26	3.08	14.4	332	133	37.8	0.90	27	2.99	14.1	325	129	Rating
	41.4	1.00	25	3.03	142	314	127	402	0.97	27	3.00	14.1	311	125	37.1	0.94	27	2.91	13.8	302	122	is AHRI
	48.3	0.70	20	3.12	14.3	327	151	46.9	0.67	21	3.09	14.2	324	149	43.3	0.64	22	2.99	13.9	314	145	ıaded area i
	45.2	0.86	24	3.00	13.9	314	142	43.9	0.82	25	2.97	13.8	311	140	40.5	0.79	25	2.88	13.5	301	136	
	43.2	96.0	25	2.89	13.5	297	130	41.9	0.91	26	2.86	13.4	294	128	38.7	0.88	27	2.77	13.1	285	125	NOTE: SP
	42.4	0.99	25	2.81	13.2	276	122	41.1	0.95	27	2.78	13.1	273	121	38.0 38.7	0.91	27	2.70	12.8	265	117	
	49.4	0.68	20	2.84	13.4	292	143	48.0	0.64	21	2.82	13.3	289	141	44.3	0.62	21	2.73	13.0	280	137	
	46.3	0.83	23	2.74	13.0	280	134	45.0	0.79	24	2.71	12.9	277	133	39.6 41.5	0.77	22	2.63	12.6	269	129	an a
	43.4 44.2	0.92	22	2.63	12.6	265	123	42.9	0.88	26	2.61	12.6	262	122		0.85	26	2.53	12.3	254	118	perature
	43.4	96.0	25	2.56	12.4	246	115	42.1	0.91	26	2.54	12.3	244	114	38.9	0.88	27	2.46	12.0	236	111	nb Tem
	MBh	S/T	Delta T	ΚM	AMPS	HI PR	LO PR	MBh	S/T	Delta T	ΚM	AMPS	HI PR	LOPR	MBh	S/T	Delta T	KW	AMPS	HI PR	LOPR	* Entering Indoor Dry Bulb Temperature
				1519							1350							1181				Entering Ir
											88											*

High and low pressures are measured at the liquid and suction access fittings. Entering Indoor Dry Bulb Temperature

KW = Total system power

AMPS: Unit amps (comp.+ evaporator + condenser fan motors)

## **EXPANDED PERFORMANCE DATA**

Design Subcooling, 7 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

4.05 39.6 0.48 158 0.45 4.01 3.89 467 152 29 115 0.69 3.89 3.86 442 139 63 145 36.2 0.65 456 0.63461 143 16 34.9 3.76 0.82 3.64 29 136 16.7 424 131 3.89 3.85 42.8 436 29 105 အ 3.74 3.70 0.68 0.65 3.5916.2 400 135 140 16.7 18 39.1 3.64 3.60 15.8 0.82 3.50 29 16.3 384 20 3.66 3.70 3.55 16.3 45.0 146 29 391 388 Entering Indoor Wet Bulb Temperature Outdoor Ambient Temperature 8 99.0 3.56 ಜ 42.3 0.63 3.52 0.60 3.42 15.3 356 128 15.8 134 367 18 40.9 23 0.79 3.46 3.43 14.9 0.72 331 20 8 99 7 71 29 3.48 3.44 8 8 344 46.2 8 3.34 0.64 3.31 63 0.61 42.1 9 0.76 3.26 3.22 14.5 29 299 290 40.7 20 8 7 290 128 29 0.41 299 22 0.62 63 286 43.2 3.07 2.98 283 8 3.02 2.99 13.5 2.90 13.1 29 255 266 283 2 2.94 269 48.4 0.40 2.91 12.8 259 122 29 267 13 65 2.83 0.60 255 4.2 2.80 245 ន 2.76 0.68 2.73 2.65 42.6 29 99.0 109 237 LO PR AMPS AMPS HI PR S/T Delta T MBh S/T Delta T 표 LO PR 표 MBh Delta <sup>7</sup> ≷ ΚW ≷ 'n Airflow 1519 1350 1181 \*Ba 2

-	_		_	_	_						_							_	_		
43.7	0.41	11	4.25	19.0	513	170	42.5	0.39	11	4.21	18.8	508	169	39.2	0.37	11	4.08	18.3	492	163	
40.7	0.63	16	4.09	18.3	491	160	39.6	09.0	16	4.05	18.2	487	158	36.5	0.58	17	3.93	17.7	472	153	
37.6	0.84	19	3.93	17.8	465	146	36.5	0.80	20	3.89	17.6	461	145	33.7	0.77	20	3.78	17.2	447	141	
36.6	6.93	21	3.83	17.4	433	138	32.5	68'0	22	3.79	17.2	428	136	32.8	98.0	22	3.68	16.8	415	132	
47.2	0.40	12	4.08	18.0	464	165	45.8	0.39	12	4.04	17.8	459	163	42.3	0.37	12	3.92	17.4	446	158	
44.0	0.63	17	3.92	17.4	445	155	42.7	0.60	17	3.89	17.2	440	153	39.4	0.58	18	3.77	16.8	427	148	
40.6	0.83	20	3.78	16.9	421	142	39.5	0.79	21	3.74	16.7	417	140	36.4	0.76	22	3.63	16.3	405	136	
39.5	0.93	22	3.68	16.5	391	133	38.3	0.88	23	3.64	16.4	388	132	35.4	0.85	23	3.53	15.9	376	128	
49.7	0.39	12	3.88	17.0	412	157	48.2	0.37	12	3.85	16.8	408	155	44.5	0.36	12	3.73	16.4	968	151	
46.3	09.0	17	3.73	16.4	395	147	45.0	0.58	18	3.70	16.3	391	146	41.5	0.56	18	3.59	15.9	380	142	
42.8	0.80	71	3.59	15.9	374	135	41.5	0.76	22	3.56	15.8	371	134	38.3	0.73	22	3.45	15.4	360	130	
41.5	0.89	22	3.50	15.6	348	127	40.3	0.85	23	3.47	15.4	345	126	37.2	0.82	24	3.36	15.1	334	122	
50.9	0.38	12	3.65	16.0	362	149	49.5	0.36	12	3.62	15.8	329	148	45.6	0.35	12	3.51	15.4	348	144	l
47.5	0.59	17	3.51	15.4	347	140	46.1	95.0	18	3.48	15.3	348	139	42.5	0.54	18	3.37	14.9	333	135	
43.8	0.77	21	3.38	15.0	329	129	42.6	0.74	21	3.34	14.9	326	127	39.3	0.71	22	3.24	14.5	316	123	(
42.6	0.87	22	3.29	14.7	306	121	41.3	0.83	23	3.26	14.5	302	120	38.2	0.80	24	3.16	14.2	293	116	
52.2	0.37	12	3.39	14.8	318	144	20.7	0.35	12	3.35	14.7	315	142	46.8	0.34	12	3.25	14.3	306	138	£ 300
48.6	0.57	17	3.26	14.3	305	135	47.2	0.54	18	3.23	14.2	302	134	43.6	0.53	18	3.13	13.8	293	130	
44.9	0.75	21	3.13	13.9	289	124	43.6	0.72	21	3.10	13.8	286	122	40.3	69.0	22	3.01	13.5	278	119	L
43.6	0.84	22	3.05	13.6	269	116	42.4	0.80	23	3.02	13.5	266	115	39.1	0.78	24	2.93	13.2	258	112	
53.4	0.35	11	3.09	13.8	284	136	51.9	0.34	12	3.06	13.7	281	135	47.9	0.33	12	2.97	13.3	273	131	
49.8	0.55	17	2.97	13.3	272	128	48.3	0.53	17	2.94	13.2	269	127	44.6	0.51	18	2.85	12.9	261	123	
46.0	0.73	20	2.86	13.0	258	117	44.6		21	2.83	12.9	255	116	41.2	0.67	21	2.75	12.5	247	112	
44.7	0.81	22	2.78	12.7	239	110	43.4	69'0 82'0	23	2.76	12.6	237	109	40.0	0.75	23	2.67	12.3	230	106	ı
MBh	S/T	Delta T	ΚW	AMPS	표	LO PR	MBh	S/T	Delta T	ΚW	AMPS	표	LO PR	MBh	S/T	Delta T	KW	AMPS	H R	LO PR	H = 0
			1519							1350							1181				
							_			72											  -
_																					1

\* Entering Indoor Dry Bulb Temperature NOTE: Shaded area is ACCA (TVA) conditions High and low pressures are measured at the liquid and suction access fittings.

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MODEL: GPC1548M41

## **COOLING PERFORMANCE DATA**

## **GPC1548M41\***

## **COOLING OPERATION**

## **EXPANDED PERFORMANCE DATA**

MODEL: GPC1548M41

Design Subcooling, 7 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 5°F @ the compressor suction access fitting connection.

			9	GS	ľ		77		-		Out	door An	bient Te	Outdoor Ambient Temperature	er es			105	Ľ			115		
			1				2		-	뺩	ering Ir	door W	et Bulb 7	Entering Indoor Wet Bulb Temperature	ure			2	,			2		
Airflow	w	59	63	29	71	29			7	59 63	3 67	7 71	29	63	29	71	29	63	29	71	29	63 (	29	7
	MBh	45.5	46.5	49.6				48.5	Ĥ				Ĥ		46.2	49.4	40.2	41.1	43.9	46.9				43.4
	L'S/	0.89	0.84	0.68	_	_			0.53 0			2 0.54	_	0.92	0.75	0.56	1.00	0.95	0.78	0.58		0.96.0	_	0.58
	_	25	24	R	+	25		7	+	25 24			5 5	24	21	17	24	24	21	16	- 1.	- 1.		15
1519		12.81	2.83	3.00	3.12	3.08	3.17		3.42 3	3.32 3.4 14.8 15	1 156	3.69	+	3.63	3.77	3.92	3.72	3.81	3.90	4. 12 18 1	3.87	3.97 4	4.13 4	10.2
	E PR	242	260	275	+				+				╂	378	336	417	395	426	449	469				518
	LOPR	111	118	129	138	117	125	136	145 1	122 130	30 142	2 151	128	136	149	129	134	143	156	166	139		161	172
	MBh	44.1	45.1	48.2	_	43.1					Ĺ	1		42.0	44.8	47.9	39.0	39.9	42.6	45.5		36.9	39.4 4	12.2
	S/T	0.85	0.80	0.65	0.49				┢				2 0.93	0.88	0.71	0.53	0.97	0.91	0.74	0.55				0.56
	Delta T	26	25	21	17	26	25	22	17			2 17	26	22	22	17	26	25	21	17			20	16
1350	KW	2.78	2.86	2.97	3.09	3.05	3.13	3.26	3.39 3		38 3.51	3.65	H	3.59	3.74	3.88	3.68	3.78	3.93	4.08	3.83	3.93 4	4.09 4	4.25
	AMPS	12.7	13.0	13.3	13.8	13.6	13.9	14.3	14.8	14.7 15	15.0 15.4	4 16.0	H	15.9	16.4	17.0	16.5	16.9	17.4	18.0	17.4	17.8 1	18.3 1	19.0
	王	239	258	272		269	289							374	395	412	391	421	445	464	433	465 4	492	513
	LOPR	110	117	128	136	116	124		┢				⊢	135	147	157	133	142	155	165	138		, 091	170
	MBh	40.7	41.6	44.5	47.5	39.8	40.7	43.4	46.4 3	38.8 39.7	.7 42.4				41.4	44.2	36.0	36.8	39.3	42.0	33.3	34.1 3	36.4	38.9
	S/T	0.82	0.77	0.63	0.47		l_		┢				06:0	0.84	0.69	0.51	0.93	0.88	0.71	0.53			0.72 (	0.54
	Delta T	26	25	Ø	17				⊢				_		22	18	56	22	22	┢				16
1181	Ш	2.70	2.77	2.88	3.00	2.96	3.04	3.16	3.29 3		3.28 3.41	1 3.54	Н		3.62	3.77	3.57	3.66	3.81	Н	3.72	3.82	3.97	4.13
	AMPS	12.4	12.7	13.0	13.4				Н				Н		16.0	16.5	16.1	16.4	16.9	17.5			17.9 1	18.5
	H R	232	250	264	275	261	280						Н		384	400	380	409	432	450	420	452 4	477 4	497
	LOPR	107	114	124	132	113	120						H	131	143	152	129	137	150	160	133			165
										NOTE	TE: Shade	aded area	a reflects.	Α	ing conditions	suo								
	MBh	46.3	47.1		52.7	45.2	46.1				45.0 47.1				45.9	49.0	40.9	41.7	43.6	46.6	37.9	38.6 4		43.1
	S/T	0.94	0.30		-				-				1.00		0.89	0.73	1.00	1.00	0.93	0.75				0.76
	Delta T	26	26	24					77	27 2		5 21	-		25	22	22	22	22	21	23	23	23	20
1519		2.84	2.92	3.03	Н			3.32	Н		3.45 3.58		Н	3.67	3.81	3.96	3.75	3.85	4.00	4.16				4.34
	AMPS	12.9	13.2	13.6	_				15.0 1	14.9 15			-		16.7	17.3	16.8	17.1	17.7	18.3				19.3
	HR	244	263	278	289	274			_				-		403	421	333	430	454	473	441			523
	LOPR	112	119	130	139	119	126		147 1	123 13					150	160	136	144	158	168	140	149 1	163 ′	174
	MBh	44.9	45.8	47.9	51.1	43.9	44.7	46.8		42.8 43	43.6 45.7	7 48.8	3 41.8		44.6	47.6	39.7	40.5	42.4	45.2		37.5 3	39.2 4	41.9
	S/T	0.89	0.86	0.78	~	0.93	0.89	0.81	-5		0.92 0.83	3 0.67	$\overline{}$	0.95	0.85	0.69	1.00	0.98	0.89	0.72				0.72
		27	27	52		28	27						-	27	26	22	27	27	26	22				21
1350		2.81	2.89	3.00		3.08							• • •	3.63	3.77	3.92	3.72	3.81	3.96	4.12	3.87		1	4.29
	AMPS	12.8	13.1	13.5	13.9	13.7	14.0	14.4	Н				Н	16.1	16.5	17.1	16.6	17.0	17.5	18.1	17.5			19.2
	HR	242	260	275	287	271	292							378	336	417	395	426	449	469	437			518
	LOPR	111	118	129	138	117	125		145 1	122 13	130 142	2 151	128	136	149	159	134	143	156	166	139	148 1	, 191	172
	MBh	41.4	42.3	44.3	47.2	40.5	41.3	43.2	46.1	39.5 40	40.3 42.2	.2 45.0	38.6	39.3	41.2	43.9	36.6	37.3	39.1	41.7	33.9	34.6 3	36.2	38.6
	S/T	98.0	0.83	0.75	0.61	0.89	98.0			0.91 0.8	0.88 0.80		5 0.94	0.91	0.82	0.67	0.98	0.95	0.85	0.69	0.99	0.95	0.86 (	0.70
	Delta T	28	27	26	22	28	28			28 28	8 26	3 23	28	28	26	23	28	27	26	22	26	26	24	21
1181		2.73	2.80	2.91	3.03	2.99	3.07	3.19	3.32 3	3.22 3.31	31 3.44	4 3.58	3 3.43	3.52	3.66	3.81	3.60	3.70	3.85	4.00	3.75	3.85 4	4.01 4	4.17
	AMPS	12.5	12.8	13.1		13.4	13.7	14.1	14.5	14.4 14.7		-		15.7	16.1	16.7	16.2	16.6	17.1	17.7	17.1	17.5 1		18.7
	H PR	235	252	267	278	263	283		312 2	299 322		0 355		367	387	404	384	413	436	455	424		482	502
	LOPR	108	115	125	133	114	121	132	141 1	118 12	126 138	8 146	3 124	132	144	154	130	139	151	161	135	143 1	, 29	167
-interin	Entering Indoor Dry Bulb Temperature	ulb Temp	perature			_	NOTE:	Shaded	area is A	Shaded area is AHRI Rating Conditions	ing Con	ditions				- WM	otalsy	<w =="" power<="" system="" td="" total=""><td>wer</td><td></td><td></td><td></td><td></td><td></td></w>	wer					
	0.00	7	:1 cd++c	7000	9010	0000	£:44:				J					2	12:	. , , , , , ,			7000	act too	240	-

KW = Total system power AMPS: Unit amps ( $\infty$ mp.+ evaporator +  $\infty$ ndenser fan motors)

## **COOLING PERFORMANCE DATA**

### **PERFORMANCE TEST**

All data based upon listed indoor dry bulb temperature. .00 inches external static pressure on coil of outdoor section. Indoor air cubic feet per minute (CFM) as listed in the Performance Data Sheets:

If conditions vary from this, results will change as follows:

- 1. As indoor dry bulb temperatures increase, a slight increase will occur in indoor air temperature drop (Delta T). Low and high side pressures and power will not change.
- 2. As indoor CFM decreases, a slight increase will occur in indoor temperature drop (Delta T). A slight decrease will occur in low and high side pressures and power.

A properly operating unit should be within plus or minus 3 degrees of the typical (Delta T) value shown.

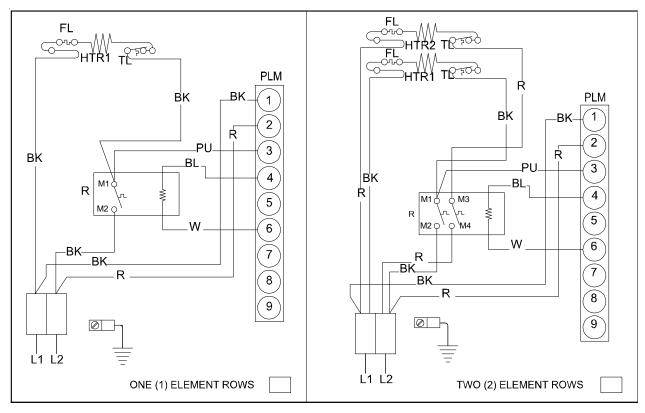
A properly operating unit should be within plus or minus **7 PSIG** of the **HI PR** shown.

A properly operating unit should be within plus or minus **3 PSIG** of the **LO PR** shown.

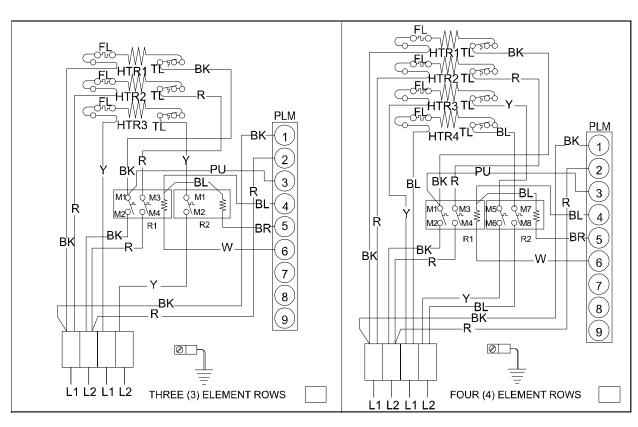
A properly operating unit should be within plus or minus **3 Amps** of the typical value shown.

**5 KW** 





**10 KW** 



15 KW 20 KW

